

Aviation News

MCGRAW-HILL PUBLISHING COMPANY, INC.

DECEMBER 15, 1948



Nation Pays Him Tribute: On the 40th anniversary of the historic flight at Kitty Hawk, Orville Wright is working on a new aviation invention. This exclusive photograph was taken recently at his home in Dayton. Only at President Roosevelt's insistence did he consent to make one of his rare public appearances at a Washington dinner this week in his honor.

Plane Deliveries Reach 97 Percent of Schedule

Industry turns out 8,789 aircraft in November, despite changes in design and constantly expanding requirements.....Page 16

CAB Grants Feeder Line Certificate

Essair gets approval for Houston-Amarillo route; Continental gets O.K. on Hobbs, N.M.-San Antonio line.....Page 34

Use of Canadian Ports on Alaska Route Urged

Senate subcommittee points to large U.S. investment in recommending negotiations with Dominion.....Page 44

NATA Speakers Assail Federal Red Tape

Convention delegates say too much regulation, grounding private flyers, will be fatal to lightplane industry.....Page 7

Taxes Offset Gain in Airline Earnings

Year's income to be lower as result of sharp rise in operating costs and excess profits levies.....Page 27

Decline in Aircraft Employment Reversed

Total up 3,900 in October after protracted drop in plane plant jobs, War Manpower Commission reports.....Page 12



U. S. Army 10th Air Force bombers over Bielefeld-Melle plant, Münsterberg, Germany—Dec. Photo

TARGET DESTROYED

This photograph is just one of the many exciting pictures that are bringing home overwhelming proof that our bombers are sailing through and destroying enemy targets one by one.

As you read step after step about U. S. Army Air Forces bombing missions and see accompanying pictures that back up these stories with indisputable evidence, you begin to wonder how much remarkable photographs are obtained.

Some years ago the Aerial Surveys Division of Robinson Aviation, Inc., while engaged in aerial photography for the United States Government, encountered difficulty in obtaining crystal-clear photographs that met rigid requirements of sharpness. Investigation indicated that to solve the problem, engine and propeller vibrations should be more effectively absorbed.

In the course of over 200 thousand square miles of aerial mapping, a new type of cause was perfected. It embodied what is known today as the Weissenbach principle of vibration control. This principle interposes absorbing slams as placed that the cause is isolated from outside vibration with extraordinary efficiency.

Today Robinson causes aircraft are standard equipment on the airplanes of both the U. S. Navy and the Army Air Forces, and Robinson-designed shock mounts are in production to carry Naval aircraft radio equipment and aircraft instrument panels.

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THE AVIATION NEWS

Washington Observer

PRODUCTION TEMPO—A total output this year of more than 15,000 planes, forecast here months ago, means realization since it is only necessary that December production keep pace with November's 8,569 units, because of the additional working days this month. Thus, the aircraft industry, two years after Pearl Harbor, is producing at an annual rate of about 205,000 planes, with peak expected shortly before mid-1944.

* * *

WEST COAST COMEBACK—Not the least of the factors which has pulled production off its flagging plateau of last summer has been the comeback of the Pacific Coast companies, nearly all of which are now meeting or exceeding their monthly quotas. For example, seven major West Coast companies, operating ten plants, produced 3,581 military aircraft in November against 2,696 in October.

* * *

CAUTIOUS ANNOUNCEMENT—Bomber production figures were actually close to 1,100, according to government officials, but OMB announced the 1,000 figure in anticipation of a later lift-off in December which may result in a drop-off in production.

WHAT'S AHEAD IN '44—Big jobs lie ahead since the war production task is at least 20 percent bigger than that in 1943. There is little doubt, however, that as the general production picture improves, will play some part in next year's progress. It appears that, whatever such plans may be developed, their execution will have to be carried out by an organization similar to WPA, composed of men from industry.

* * *

HEAD MAN—It is generally assumed in Washington that since the President directs the war, he is the ultimate authority. In this connection one of the first decisions which he will make will be conversion, and possibly even appointment of a man to head the program. Optimism over the war's outcome is increasing despite the repeated assassination of leaders that the war is still to be won.

JUSTICE DEPT. AT WORK—Justice Department officials are working behind the scenes to aid in framing legislation in connection with re-conversion to head off possible fractures of anti-trust laws and the control of an industry by one firm or group of firms. Much of the De-

partment's work will become apparent in various Congressional committee reports.

* * *

NAVAL TRANSPORT STUDY—After official release of the OWI's report on the U. S. airlines' contract operations for the Army Air Transport Command, the Elmer Davis organization plans a similar report on the world-wide Naval Air Transport Service. The Navy has pledged full cooperation. OWI has completed the ATC study and last week invited four classifiers in one or two War Department offices.

* * *

MORE TESTS FOR THE MARIS—Although the Navy has taken delivery of the giant flying boat Maris from the Glenn L. Martin Co., the Naval Air Transport Service, which will fly the ship, plans further tests. It is still anticipated that additional craft of the type will be ordered soon. Present plans call for regular transoceanic flights for the Maris in the near future.

* * *

DECISIVE BOMBINGS NEAR—Col. Edgar S. Gourin, president of the Air Transport Association, who recently returned from Europe, be-



Firebombs Over Algiers

heavily bombing of Germany in the next 45 days or so will be decisive in the war. He declined to amplify his statement, but it is known that

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Gets them in the air quicker . . . Burns any type of gasoline, from truck fuel to highest octane . . . Fuel supply self-contained . . . Compact, simple and dependable . . . Can be operated anywhere within reach of 110 volt extension . . . Easily handled by one man . . . Can be hooked up or stowed away in a few seconds . . . Delivers 25,000 Btu per hr. . . Unit shown above specially designed for light planes. Other simple duct connections available for larger cowlings or for radial installations. Comes with complete set of duct end hoses for either type of installation. * Investigate this simple preheater before cold starting time losses interfere with your combat operations.

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AVIATION NEWS

December 13, 1943

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A war can last
one minute too long...



A man can get killed just as dead on the last day, the last hour, the last minute of the war as he can at any other time.

If American troops delayed in their advance because we at home fail to produce the supplies they need on time, then we are guilty of prolonging the war, lengthening the casualty lists.

The great majority of American industrial workers, owners and managers realize this grim fact. They are working night and day to win the war and win it as quickly as possible. They do not want this war to last "a minute too long" for

a son, brother, husband, sweetheart or friend.

The point for all of us to remember is this: Even when the newspapers tell us of new Allied victories on the fighting fronts we must set *shakem our pace on the home front*. We must do all in our power to shorten the war, to save lives.

ETHYL CORPORATION

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Our job is manufacturing Ethyl fuel for improving the antiseize quality of fighting gasoline—and offering it on time. Ethyl workers have been awarded the Army-Mary "R" for outstanding achievement in producing war equipment."



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Aviation News

MCGRAW-HILL PUBLISHING CO., INC.

DECEMBER 13, 1943

NATA Asks Easing of Air Laws, Plan on War Surplus, Feeder Lines

Excessive red tape, grounding private flyers, assisted as important deterrent to development of lightplane industry at St. Louis meeting.

By ALEXANDER McGURELY

Strong criticism of what was characterized as excessive federal government restrictions hampering the future development of aviation, demands for a special federal commission to handle distribution of surplus war goods in orderly fashion, and plans for participation by fixed base operators in a network of feeder airlines were the most significant developments of a double-billed four-day St. Louis convention of the National Aviation Training Association (which changed its name to the National Aviation Trade Association) and the Aviation Distributors and Manufacturers Association.

Speech after speech in the four-day meeting lambasted the surplus red tape entangling private flying, called for simplification of regulations, while talk of the retiring NATA president, Leslie Bowman, of Ft. Worth, and the incoming NATA president, Elmer Turner, of Indianapolis, at the closing business session re-organized these points.

» Urges Collective Action.—Sol Turner, "Doesn't you tired of being locked around and having told how to run your business? Didn't you have been independent, but today we have reached the point where the individual doesn't make much of a mark. It is: Where do we represent and how many? Collectively we can make a lot of things happen."

Bowman outlined an enlarged program for NATA under his new name, to serve every type of associated and independent commercial aeronautical activity, called for elimination of wartime restrictions on civilian flying as soon as possible, and a thorough revising of Civil Air Regulations to the simplest form possible, consistent with safety.

» Recommendations.—Resolutions adopted at the closing session asked

laws are enacted, called for additional development of many small airports and landing strips by federal and state agencies to accommodate the rapidly expanding group of private flyers in the postwar era and asked for simplification of government military and peacetime restrictions on civilian flying.

» Civil Aviation Act Revision.—Asked that principles of sovereign authority in the federal government over the air space, and prevention of monopoly in air transportation be made a part of legislative revision of the Civil Aviation Act of 1938; proposed entry by incorporated operators of earlier transportation companies into any division of the air transportation business; asked CAB to act now on preliminary steps necessary to grant certificates on new routes, particularly feeder lines, in order to provide jobs for demobilized U. S. Air Forces veterans, and to provide for delivery of all first-class mail by air.

It demanded that the War Depart-



New Officers and New Name: National Aviation Training Association, at its recent St. Louis meeting, changed its name to the National Aviation Trade Association and elected the officers shown above, from left to right: Harry van Berg, Cessna City, Mo., second vice-president; Elmer Turner, Indianapolis, president; and F. Leslie Merle, Buffalo, N.Y., first vice-president.

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ment and WPAF "as soon as victory appears safe," permit aircraft factories to build feeder planes, and other commercial-type planes and permit short-haul operators to begin operating on many test flights.

Student Training Program—Revival of the Civilian Pilot Training Program for high school classes was urged as was immediate CAA action reviving CAP Rule 24, to permit returning veterans who have had mechanics or technical training to take examinations under the new system, and also to establish a new airplane and engine certification system for CAA-approved schools before the term of administration begins in the large-scale training program for servicemen.

The resolution opposing the Lea Bill in its present form was not discussed, although previously Bowman had issued a statement approving the general nature of the bill, and opposing state control of aviation.

Favorable Federal Law—"I would rather by far take the chances of getting necessary changes made in one federal law than I would in trying to get changes made in various state laws," Bowman said.

"Courts have held that radio waves cannot be stopped by state boundary and people who are against federal control should remember that airplanes are in the same category."

Robert H. Hinckley, former Assistant Secretary of Commerce, and former Civil Aerodynamics Advisory chairman, made amplification of flying regulations a main point of his talk on "The Post-Post Program for a Three-Dimensional World." He warned NATA members, however, that "the future will be what you make it. You can't be free from government control if you won't demand and take responsibility yourselves."

Cuts Red Tape Hazard—"In the past, unnecessary regulations have had the effect of blocking private flying," he said. "I, personally, know of cases where people have sold their personal planes and let their license laps solely because of the number of complying with the regulations."

Now assistant to the president of Sperry Gyroscope Co. Inc., Hinckley named as his other three main points for further development of the Air Age: an improved education and training through elementary schools, high schools and colleges, with flight operators providing laboratory training as a complement to school training; two improved and additional landing areas and navigation aids including landing



NATA Speaker: Robert H. Hinckley,

former CAA chairman, now assisting to the president of Sierra Club, who told NATA members they could not be free from government control unless they demanded it and assumed responsibility, pointing out that unsafe regulations in the past have had the effect of blocking private flying.

areas in the great recreational areas, such as national and state parks, and finally, landing strips along highways.

Excessive Regulation—Leslie Neville, editor of *Aeratus*, told members of ADMA: "Personal plane flying has suffered for years from too much law. The original mandate of the Civil Aerodynamics Act was to regulate and prosecute civilian aviation in the great recreational areas, such as national and state parks, and finally, landing strips along highways."

Wanted: More Progress—The chairman of the committee of aviators to technical progress in aviation, as pointed out that many lightplane manufacturers in the pre-war period were so absorbed in getting checked out."

He urged uniform, simplified federal traffic laws, enforced by state and local agencies.

Research—Frank Tichener of Aero Digest told NATA at a luncheon talk that postwar aviation policies, to be successful, must depend on research and development, rather than regulation or politics. He called for establishment of a Secretary of Air Commerce in the President's cabinet, and establishment of a clearly defined statutory code to take the place of haphazard discretion and regulation.

Tichener, who is also chairman of the aerodynamics advocacy committee of the Department of Commerce, suggested that in the field of international flying, selected airports should be designated by air routes to be used by citizens of favored nations on terms of fair use and rentals and regulation of traffic control on the basis of air routes.

CAP Program—Lt Col Erie L. Johnson, CAA Civil Air Patrol commander, discussed a contemplated program of recruiting CAP cadets, and urged simplified federal regulations for flyers.

*Aviation must be a hometown

light engine manufacturer to provide increased horsepower that they ignored several new aerodynamic developments that would have given them the desired performance without increasing the power. "This cannot continue in the postwar period," he added.

Air Cargo Discussed—Warren H. Atherton, of Stockton, Calif., national commander of the American Legion, pointed out that the airplane's principal usefulness after the war would be in hauling high-priority vital cargoes, such as medical transportation. "It will not take any business away from the railroad or steamer ship. It will create more," he added.

Representative Jennings Randolph, of West Virginia, cited the need of better transportation from airports to downtown areas, and discussed the need for developing substitutable airplane fuels from coal and oil shale to supplement the nation's oil supply.

Aks Uniform Laws—Wayne W. Perrin of *Aeratus Aviation*, drew a parallel between present regulations affecting the private flyer and a need for similar regulations protecting the safety of the amateur pilot.

"For example," said Perrin, "just the other day I saw a man who had never driven anything but a Ford escape into a Plymouth median and drive away without being checked out."

He urged uniform, simplified federal traffic laws, enforced by state and local agencies.

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*Aviation must be a hometown

Wins NATA Award

The annual NATA award for outstanding contribution to aviation was awarded to Capt. Roderick Hickenlooper and announced at the association banquet. Capt. Hickenlooper was unable to be present.

business. You can't be independent and do your own thinking on a subject. And regulations must be simplified until the airplane is considered in terms comparable to the situation."

Cpl. Johnson said CAP had enlisted 42,000 members and 43,000 additional cadets, making it the U. S.'s largest civilian aviation body.

Feeder Line Operations—Discussing feeder line operations by fixed base operators, W. Haley Reed, Kansas City, outlined the program of Consolidated Air Lines, Inc., an organization of fixed base operators headed by Hanace Turman, Indianapolis, which has filed applications for a system of feeder routes across the nation. Operators have available financing and are "ready to start to market" as soon as applications are approved, he said.

Lester said 18 operators are operating in the organization, and that they expect to use twin-engine eight-passenger Beechcrafts, which can carry 400 pounds of cargo in addition to passengers. The planes will be equipped for pickup service, and routes will average about 40 miles between stops, maintaining a "block-to-block" speed of 120 mph.

Higgins to Remain In Air Industry

Hughes connector reveals plans for helicopters and huge cargo planes.

By MARY PAULINE PERRY

Andrew Jackson Higgins, New Orleans boat-builder extraordinary and a newcomer to the aviation industry, has definite plans to stay in the aircraft industry after the war with his plane based on two specific projects now taking shape.

Higgins says he has no idea of entering the automobile manufacturing field as some other aircraft men have indicated they might do, on the ground that there is a surplus of experts in that line, but Higgins believes the aviation industry is young enough and has sufficient room for expansion to support newcomers.

Bear Plane—His postwar plan

are being built around a rotor plane designed by Elyse Baum and a large plane, planned by Andrew Jackson Higgins. Higgins is now working on the larger cargo plane. Higgins said, as far as the future for expansion, but the helicopter is "within our scope of development right now—in the immediate present."

Higgins looks in the construction of the helicopter commercially in sizes varying from two-place to 14-passenger airliners. He says they will have a comparatively low maintenance cost.

Cpl. Johnson said CAP had enlisted 42,000 members and 43,000 additional cadets, making it the U. S.'s largest civilian aviation body.

Feeder Line Operations—Discussing feeder line operations by fixed base operators, W. Haley Reed, Kansas City, outlined the program of Consolidated Air Lines, Inc., an organization of fixed base operators headed by Hanace Turman, Indianapolis, which has filed applications for a system of feeder routes across the nation. Operators have available financing and are "ready to start to market" as soon as applications are approved," he said.

Lester said 18 operators are operating in the organization, and that they expect to use twin-engine eight-passenger Beechcrafts, which can carry 400 pounds of cargo in addition to passengers. The planes will be equipped for pickup service, and routes will average about 40 miles between stops, maintaining a "block-to-block" speed of 120 mph.

Higgins to Remain In Air Industry

Hughes connector reveals plans for

helicopters and huge cargo planes.

By MARY PAULINE PERRY

Andrew Jackson Higgins, New Orleans boat-builder extraordinary and a newcomer to the aviation industry, has definite plans to stay in the aircraft industry after the war with his plane based on two specific projects now taking shape.

Bear Plane—His postwar plan



Highest Helicopter: This rotor plane was designed by Elyse Baum for Higgins Aircraft and is now ready for test flights. Andrew Jackson Higgins, New Orleans boat-builder extraordinary and a newcomer to the aviation industry, has definite plans to stay in the aircraft industry after the war with his plane based on two specific projects now taking shape.



New NATA Officers

Newly elected officers of the National Aviation Trade Association are: Robert Turner, Inc., chairman; Frank Tichener, Inc., first Vice-president; Leslie Neville, Inc., second Vice-president; Harry von Berg, Carson City, Nev., second vice-president; Leslie Bevins, Fort Worth, Tex., acting president-chairman of the executive board; and members of the board: Frank H. Hyatt, Rochester, N. Y.; W. F. Underwood, Atlanta; Arthur Carr, Galesburg, Ill.; Cleo Breese, Lubbock, Tex.; F. C. Anderson, Des Moines, Iowa; and Harry Haka, Coeur d'Alene, Idaho, and Harry von Berg.

The organization formerly was known as the National Aviation Training Association.

take to alleviate use of any particular material in airplane construction and that planes should be made of composite materials and where best suited to a point of structure or in placement the postwar plans include use of many varied materials as aircraft as in building.

► **Privately Developed**—In this connection he said the Bellings cargo plane design was radical and that the plane would be built of composite type of materials.

The Dorni rotor and the cargo plane are both Higgins developments and without government sponsorship.

Higgins plants are now devoted to production of Curtiss C-45 Commanche.

In addition to Bass and Bellanca, Higgins' aircraft staff has as its director Col. John H. Jouett, who organized the Chinese air force and was formerly president of the American Chamber of Commerce.

bally, heavy landing gear. He believes the helicopter will have practical value in short trips, although he does not consider it as likely to approach the conventional airplane in efficiency for longer hauls.

► **Private Flying**—He is conservative on the development of private flying after the war, while admitting its great potentialities for widening the scope of aviation.

The speaker was in a cigarette and cigar smoking mood.

Mr. Wright watched it sailing through the air and ground.

"Do you know the scientific principle involved in making that ring?" he asked. "The rolling motion that your torque gives to it creates a centrifugal force that holds the smoke together."

► **Snake Tunnel**—From this tangent he turned to a discussion of snake tunnels and their use in testing aircraft structures by making variable the airflow over a wing or other test cell. A representative of the Standard Oil Co. of New Jersey recently visited him at Dayton to consult about some early service tunnel experiments in his laboratory here in 1919.

"We used a very small smoke tunnel, and used the blower from our regular wind tunnel. At one time we tried tobacco smoke provided by a man who sat there smoking and putting it in, but it wasn't very successful. Later, we tried mixture of chemicals to provide the smoke and it worked better. If conditions are right, the smoke shows little eddies and vortices in the air currents over the model which offer a key to many of your design problems."

Advancements in science may make some aviation procedures obsolete, he predicted, referring particularly to rocket propulsion for aircraft and to development of some more efficient method of landing and launching airplanes that the present

Kitty Hawk flight.—Naturally the conversation turned back to the Kitty Hawk flight, and the years of practical testing and experiments which led up to them.

Orville Wright receives all tributes in the name of the famous

does not seem fair that the companies, who have had the advantage of this government financing, should claim a right to monopolize the world's air routes because of that."

► **Opposes Centralized Competition**—On the other hand, Mr. Wright does not favor a wide-open cut-throat competition between all nations.

"If all our airlines which have magnified their interests of operating foreign routes, do so, however, there won't be any business for anybody," he causticized. "There must be some reasonable arrangement worked out."

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Comcast Biggest Glider Test: Witnessing a test flight of the AAF's largest production model glider were, left to right, John E. Parker, president, Northwestern Aerostatic Corp., builders of the craft; R. W. Whalingham, Northwestern's production manager; James Lonsdale, chief inspector, Capt. Ben West, Wright Field, co-pilot; and Lt. Col. Bruce B. Price, pilot, in charge of glider projects at Wright Field.

Wright Favors Free Competition On Postwar Foreign Air Routes

Notables of aviation world pay tribute this week to co-inventor of airplane at dinner in Washington on 40th anniversary of Kitty Hawk flight.

By ALEXANDER McSURELY

The co-inventor of the airplane and the first man to fly it believe that international air routes in the postwar period should not be limited to any one company or to any one country.

Orville Wright, 72-year-old scientist, who will receive tributes of the aviation world, Dec. 13, at Washington, on the 40th anniversary of the first motor-powered airplane flight at Kitty Hawk, N. C., in 1903, voices his views in an interview at his research laboratory in Dayton, shortly before leaving for Washington to attend a dinner given in his honor.

► **Anniversary Dinner**—"Aviation in Peace" will be the theme of the anniversary dinner, which will be attended by many of the country's aviation leaders. Jesse Jones, Secretary of Commerce, will preside.

Wright foresees a serious crisis in the aviation industry in the postwar period, paralleling the "dark age" of American aviation following World War I, unless intelligent and cooperative handling by government and industry can be found to avert it.

► **World Trade Factor**—"International air commerce will play an important role undoubtedly in future development of aviation," the white-haired inventor said. "But I do not think, any one company or any one country should have a monopoly. Government subsidy paid for a large part of the expansion of our international air routes, before the war, and certainly the operations now going on would not be possible except for government financing. It

is only natural that he was considering bringing the plane back, but that he would take no action while the war continued because of possible hazard to the historic aircraft during its passage back to this country.

► **Still Many Aerostatic Students**—For decades after that winter day when he crawled on the lower wing of the flimsy biplane and launched into space at Kitty Hawk, his hair is thinner and whiter, he is a little stooped, but he is still in excellent physical condition, and his gray-blue eyes sparkle as he discusses aerostatic theories or research in which he is presently engaged.

As Orville Wright goes to Washington for the anniversary observance, the original Kitty Hawk plane still remains in England, where it was sent in 1925 as the result of the long-standing controversy between the Smithsonian Institution and the Wrights.

As you see, however, Dr. Charles G. Abbot, secretary of the Institution, published a statement giving full credit to the Wrights.

► **May Bring Plane to U. S.**—Mr.



Biggest AAF Motorless Aircraft Test: Shown in flight on the ground is the largest motorless aircraft yet built as a part of the Army Air Forces glider program. Designed by Woods and constructed by

Northwestern Aerostatic Corp., the plant craft uses the approval of the test pilot during a recent test at Wold-Chamberlain Field, Minneapolis. Details are restricted, but the photograph indicates its size.



Wright indicated recently that he was considering bringing the plane back, but that he would take no action while the war continued because of possible hazard to the historic aircraft during its passage back to this country.

PAA Lists Commercial Hope Over Atlantic

Reports 5,300,000 miles of military flights since Pearl Harbor.

Pan American Airways, in a second report marking its 8,000th transoceanic crossing since Pearl Harbor, has disclosed more figures on non-military operations.

In the two years ended Dec. 3, PAA Clippers crossed the Atlantic 1,200 times, flying more than 5,200,000 miles. On them were 36,760 high-priority passengers and 6,195,694 pounds of air express, the largest single piece weighing 2,790 pounds. United States and foreign mail and money carried were 1,000 tons, and 1,000 passengers.

► **May Bring Plane to U. S.**—Mr.

Wright who have used the Clippers are Queen Wilhelmina, King George of Greece, Crown Prince Gustav, Secretary Morgenthau, General Nelson, Wendell Willkie, Harry Hopkins, W. Averell Harriman, and others.

As an outstanding war assignment PAA cites the crossing of the world of a Clipper flight commanded by Capt. William M. McDonald, assistant chief of the naval air transport, and 93 other crews completed in the interest of the government without curtailment of regular operations.

In the two years ended Dec. 3, PAA Clippers crossed the Atlantic 1,200 times, flying more than 5,200,000 miles in 16 years. In the three months ended Sept. 30, they flew 165,042,880 passenger miles and 16,911,783 plane miles. These compare with 145,386,488 passenger miles and 14,333,338 plane miles in the second quarter of 1943, and 91,163,763 passenger miles and 8,483,206 plane miles in third 1943 period.

Schulgen Assigned

Brig. Gen. George F. Schulgen has been assigned as chief of staff of the First Air Force at Mitchel Field, N. Y., to succeed Brig. Gen. R. E. Nugent, management unannounced.

Decline in Aircraft Employment Arrested, Gains Reported by WMC

Total up nearly 3,000 in month, summary of week's activities in other federal agencies and war agencies.

The decline of aircraft employment, which last summer threatened production and was an important factor in the launching of the West Coast labor plan, has been reversed.

Number of workers in the industry generally rose nearly 3,000 from Oct. 1 to Nov. 1, with further increases indicated in December, according to War Manpower Commission officials, who explain that this is due in part to the setting of employment ceilings and a decline in shipbuilding employment. Operations of the West Coast program are reported to have moved 37,000 workers over to the West Coast shipyards after a review of existing needs of 26 major shipyards. There was no major revision in volume of shipyard activity as a result.

Situations Ease at Two Plants.—Two of the most critical aircraft plants, Lockheed and Boeing, reported an easing of their situations with some referrals reduced because of inability to absorb workers as fast as they were referred.

Boeing officials said the gain in workers was gratifying, but stressed the fact that there still is a continuing need for new employees to meet normal production in the plant and to meet greatly increased requirements for the nearby Bellanca plant.

Women's Labor Reserve.—In connection with the manpower situation, the Women's Advisory committee of the War Manpower Commission has said that the assumption on the part of many male workers and employers that women form a labor reserve to be called up temporarily is having the repercussions in war production.

Behind many women that they are a reserve group for war employment only is held by the committee to be a contributing factor to retarding production, alienating and hampering of women in the wartime labor market.

National War Labor Board last week appointed to the Airframe Panel Charles Hook, Jr., assistant to the president of Buddies Iron & Steel Corp., Baltimore, who will represent industry. Hook has sat on various WLB tripartite dispute panels as industry member for the past year.

The Airframe Panel was set up by

NWLB, late in September, to consider and make recommendations in all disputes in the aircraft industry involving wage or salary agreements. The Panel held a preliminary meeting in New York last month and several hearings are scheduled during the next month.

Membership.—Other members previously announced are Thomas L. Nelson, professor of economics at the University of Buffalo, chairman and public member; Harry Connon Grand Lodge representative of the International Assn. of Machinists, AFL, and Ed Hall, international representative of UAW-CIO, labor manager; John McLean, labor manager representative of Bell Aircraft Corp., a chosen alternate industry member.

The Board also upheld a decision of the Decree regarding WLB denying pay to employees of the Nash-Kelvinator Propeller Division. Last

week the Board had ruled that the company management, more than 50 Mexicans have been hired. FEPC has received assurances of the Plant Security Divisions of the Air Corps in the Texas area, that applications by aliens for employment will be cleared without delay. There are no legal restrictions on employment of aliens in war industries, if certain security measures are met.

GOT.—Office of Defense Transportation has issued a circular entitled "Transportation Training," designed to tell officials about training programs that have helped with manpower problems. Included in the bulletin, the first of a series, is the training program developed by American Export Airlines. Copies may be procured from the Personnel Training Section, ODT, Washington, D. C.

FAW.—Construction of aviation gasoline plants and special refueling units can be speeded up by obtaining new material that had been declared "excess and available" for war plants, says R. L. Davies, Deputy Petroleum Administrator of FAW. There are numerous excess stocks placed throughout the country, according to Davies, two of the largest in Boston and Los Angeles. Procedures necessary to obtain desired items have been reduced so that an operator can obtain supplies in less than 24 hours, if necessary. Specific information on location of stock piles of these materials, which at present are available only to re-

pairing, Mich., during a two-day work stoppage. UAW-CIO appealed the decision of the regional board, arguing that the company had violated the no-strike-no-lockout pledge. NWLB refused to review the case on its merits and said the union had failed to establish any grounds on which the regional board's decision might be reversed.

Wayne L. Morris, writing the majority opinion and the regional board found no evidence of a lockout in the sense that the purpose of a two-day shutdown was to force on the workers an agreement with terms satisfactory to the owners. The case had developed out of an incident concerning two foremen in the blade department, whom employees had complained because of their failure to adjust grievances. Labor members dissent in the NWLB decision.

President's Committee on Fair Employment Practices announced that North American Aviation Co., Dallas, has revised its employment policies affecting Mexican aliens. Since October, when the Committee first took up the situation with the company management, more than 50 Mexicans have been hired. FEPC has received assurances of the Plant Security Divisions of the Air Corps in the Texas area, that applications by aliens for employment will be cleared without delay. There are no legal restrictions on employment of aliens in war industries, if certain security measures are met.

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Construction amounting to almost \$1,000,000 was authorized by the War Department at two airfields in Texas and one in Georgia. For buildings at Chaffee Field, Savannah, and for special bombardment training facilities, \$500,000 was authorized. Extension of runways and other construction at Henley Field, Grand Prairie, and at Laguna Madre Sub-Post of Harlingen Army Airfield, Texas, will cost \$846,972 and \$592,870, respectively.

Award.—Army-Navy production star award went to employees of the Douglas Aircraft Co., Santa Monica, Calif. Thomas N. J. Far received performance in development and production of vital aircraft precision equipment. A previous Army-Navy E was awarded the division more than a year ago.

New Weather Room Tests AAF Equipment

Wright Field chamber simulates Arctic blizzards, jungle heat.

A new all-weather chamber at Wright Field can provide extremes from an arctic snow storm to jungle heat and humidity. Developed to test aircraft equipment under conditions of density altitude up to the highest found in any habitable areas of the world. Another blower, inside the chamber, will produce winds up to 60 mph which can be focused directly on the equipment being tested.

The room is ten feet high, 13 feet long and 16 feet wide, and is lined with all welded stainless steel, with walls of six inches of tile and six inches of thermal insulation metal sheets as insulation. A wooden floor is removable for certain tests.

Hot and Cold Rooms.—Blowers inside the walls provide regulated hot or cold air as will, and these veins can be linked into a full gale if the blower is turned on. To get the effect of a wind storm, a hopper outside the chamber, connected with the blower, is opened and sand brought back from the laboratory desert is poured into the hopper.

Humidity can be controlled to any degree through an electrically heated humidifier, and through control of the air pressure in the chamber.

Fog is produced through spraying a



Wright Field's New All-Weather Chamber, can test Army equipment developed for use in any climate. It can reproduce artificially, hot storms, blizzards, sandstorms, and heat, for jungle humidity, temperatures as low as 60 below zero and as high as 130 degrees. Above, two unarmored laboratory soldiers practice their one-man life rafts in the chamber to test water emergency equipment. The big blower along the left wall are 1,000-cubic ft per minute, while in conjunction with the smaller ultra-violet ray lamps, produce artificial sunlight. Cold air, to simulate Arctic conditions, comes in through the vents in the wall behind the men.

covering the floor with waterproofed cloth, which is hooked to floor and walls, providing a convenient place for testing life rafts and other emergency equipment.

An 18-ft ultraviolet lamp, made of glass, densely packed up to the highest found in any habitable areas of the world. Another blower, inside the chamber, will produce winds up to 60 mph which can be focused directly on the equipment being tested.

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Humidity can be controlled to any degree through an electrically heated humidifier, and through control of the air pressure in the chamber. Fog is produced through spraying a

fine mist from specially made nozzles in the roof of the chamber.

Temperature Control.—Two sets of electric coils automatically control the temperature in the chamber, and electric outlets for plugging in various items of electrical equipment such as electrically heated drying units are provided.

Two individual compressors refrigerate the chamber for simulating arctic condition and, when both are turned on, temperatures down to 80 below zero can be quickly attained. Controls are operated from a panel outside the test chamber, and the operator is in constant communication with the men making the tests by interphones.

Plane Glider Group

Incorporation papers have been filed in Washington, D. C., for the Glider Institute of America, Inc., when all glider manufacturers will be invited to join.

Budd Stainless Steel Cargo Plane Tested

Huge craft first built for Navy, designed as air freighter.

Flight tests on the first large-scale airplane of all-welded stainless steel construction, though incomplete, indicate the intended use of the craft will be realized.

The plane, built under Navy contract by Edward G. Budd Manufacturing Co., of Philadelphia, is a two-engine cargo carrier, similar to the aircraft pictured in AVIATION NEWS August 2. Except for plywood doors and interior floors, the airplane is built entirely of stainless steel.

Designed for Cargo—Details of construction soon to go into production are not yet available, but the first airplane the Navy has obtained which was designed entirely with cargo handling, loading and transportation as its primary mission. Other Navy cargo planes have been adaptations of personnel transports or combat types.

The plane is powered by two Pratt & Whitney engines, but other details, including cargo capacity, range, speed and performance are withheld.

Army, Navy Share Output—Under terms of the contract, part of the production will be for the Navy and part for the Army. When the craft has been built and tested, the Navy plans to use it in the fleet of cargo carriers under operation by Naval Air Transport Service.

Budd Manufacturing Co. began preliminary engineering work on the new plane the day after Pearl Harbor and later received a Navy contract. Budd, aviation men recall, built its original stainless steel plane, a three-place amphibian named the Pioneer in 1939. That airplane is now mounted before the Franklin Institute in Philadelphia.

Aircraft Firms Find Veterans Aid Morale

Moral benefit of employing ex-service men cited in GWT report.

Men being released from the armed forces at the rate of about 70,000 a month because of age or disability not only are helping to relieve the manpower situation but are contributing to their own morale as well as that of non-veteran workers in aircraft and other war plants.

In a comprehensive review of the



Budd's Optimistic—Edward G. Budd, whose company built the Santa Fe cargo Chief shown above, believes there will be a prosperous enough market for both the avionics and the methods after the war.

efforts to employ as many veterans of the war as possible, the report says, has a three-fold purpose, first, to provide a method of rehabilitating disabled war veterans, to help them and a place in civilian life; second, the company can increase its knowledge and technical training of these men gained in the armed forces; third, placement of veterans in production departments makes for a good morale factor by bringing into the plants the personal experience of combat. Consolidated-Vultee Aircraft is also using many veterans.

Threaten To Cancel Brewster Contract

Kaiser sets to square plant with House group but with doubtful results

By BLAINE STURMEFIELD

Majority of the House Naval Affairs Committee, which has just heard a month of testimony on the Brewster controversy, is of a mind to withdraw the Custer contract as soon as possible, if production is not up to a fair rate.

Henry J. Kaiser, who was elected president of the aircraft division of Packard-Bell recently, is seriously concerned about this threat to his production repetition and is spending about 90 percent of his time in an effort to rehabilitate Brewster.

Testimony Challenged—Committee spokesman and testimony designed to show that several other aircraft producers had worse records than Brewster was untrue, the committee says, in fact, at the bottom of the list when all factors are considered, they were.

Kaiser was due to come before the committee with Brewster, says the man of Custer's production can be run up to 350 a month by September, 1944. But the committee prefers that he stick to a more realistic program calling for 85 in December, 166 in January, 136 in February, 146 in March, 144 in April, and 150 in May, which is regarded as poor.

Three Plans—Company has three plants: Long Island City, a three-story building which makes parts, the \$6,000,000 assembly plant at Johnsville, near Philadelphia, to which the New York parts are trucked, and the Newark converted-hanger plant, which does not figure in the Custer picture as it makes wing panels for Consolidated-Vultee.

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Rehabilitation—North America's

What Jack the Committee would have done if it tried to close the Brewster-Bell contract is hard to say. James V. Forrestal, Under-Secretary of the Navy, addressing the Committee, strongly emphasized the need for planes, even though dealing with Brewster was expense business. He said Brewster had produced the fastest fighter in the world in 1938 (the Buffalo) and there was nothing to indicate at the time that the company would fail to meet the responsibilities of a heavy expansion to over \$100,000,000 in backlog.

Familiar Plane—One Custer alone is a formidable weapon, not a dozen of them will pass as secondary carriers, less than a hundred in the equipment of a fast carrier. There are now about 50 carriers in all, and next year the Navy's deck-based air power may double.

The Committee still doesn't have a clear notion of what happened to Brewster. It blames the Navy for over-patience, and calls it unlikely it picked two presidents, C. A. Van Dusen and Reibel, who had insufficient records but couldn't master "organized leading" and the "stiff-necked" later contract under which the company was placed.

The Committee achieves both

Kaiser and the Navy are putting too much faith in the prowess of Tom De Lorenzo, union leader, to expand Production by Brewster of SBD dive-bombers for the Navy, which never used them in combat, and for the British, is terminated with the new year.

Parks Tests Reaction To Simplified Plane

CAB issues special regulation permitting school employees to ride on two-control lightplanes.

The Civil Aeronautics Board has facilitated travel by Parks Air College of St. Louis and its affiliated schools on safety and ease of flying unsimplified two-control aircraft.

A CAB regulation will permit Parks employees in an experimental course of specialized dual flight instruction to make one solo flight in sight of and under supervision of a certified flight instructor without the usual paper work and finger-pushing.

No Safety Sacrifice—An official of CAB, explaining that the regulation meant "no relaxation in safety," said the Air College plans to try out the planes—it has Esquips and may have others—in no average group reaction to be made available likewise as possibly as many as 300 em-

ployees to find their reactions to the same set of controls attributed to the type of craft.

The employee personnel making the tests will have the customary five hours of dual instruction required on two-control planes (the requirement is eight hours on three-control planes) before they will be allowed to solo. And if they can't go on with them they must wait after the fifth hour, the day they must go through the usual ratings of the Experimental, filing applications, and obtaining identification cards.

Test Single-Place—Asked about

the report that Parks plans to sell Esquips after the war, CAB sources said their understanding was that the school intended to try other available two-control planes before making a decision.

Interest in this angle by CAB was answered, however, Washington officials making the point that the test solo, which are to be made of all Parks' scattered five schools, are not only informative from a safety standpoint.

Cut Expenses—Parks officials first urged the CAB to make the experimental flights possible with a minimum of regulation when they appeared in connection with the Board's feeder line and local service hearings.

The CAB's waiver of the usual restrictions as far as the test solo are concerned will be effective until next May 15.

Radar for Traffic

Postwar application of military aircraft radio developments may be expected to result in profound changes in traffic control and flight regulations, James A. C. Johnson, director of CAB, told the recent St. Louis meeting of Aviation Distributors and Manufacturers Association.

Rohde said, for example, that he expects a meter to be available which will indicate the exact position of the plane, whether the plane is on the course, or to the left or right of the beam, instead of sending the pilot dependent upon general audible radio signals.

Using high frequency ranges, he says, eventually will replace present radio ranges, but the conversion will be gradual. Rohde does not expect the first aircraft planes to be very different from those of the present day power planes, and that consequently first radio equipment to be made available likewise will have few changes.

Contract Termination, Salvage Units Merge

Consolidated group of Army Service Forces to be known as Readjustment Division.

Contract Termination Branch, formerly in the Purchases Division, Reutilization and Salvage Branch of Army Services Division have been merged into one department to be known as the Readjustment Division.

Contract Termination Branch, formerly in the Purchases Division supervises cancellation of contracts necessitated by changing battlefield needs, shifts in availability of strategic materials, improvements in models, and similar factors.

Equipment Closing House—Formerly in the production division, the Reutilization and Salvage Branch re-claims war equipment from Army branches having an oversupply to other branches or war agencies that need such material. It also handles procurements under which surplus and salvage material are sold.

Heading the new division is Col.

D. N. Heasman, Ordnance Dept., who has been chief of the Philadelphia Ordnance district since 1943. His staff will consist of personnel transferred from other ASF divisions and from the Army Air Forces.

Synthetic Rubber Used To Seal Gas Tanks

Use of synthetic rubber for gasoline-absorbing "overseals" on bullet-sealing fuel tanks in warplane wings has been recommended by Good Year Tire and Rubber Co.

W. C. Woods, manager of the firm's mechanical goods division, said large quantities of "Airfoam" are now being supplied several aircraft manufacturers for the lightweight overseals, which can absorb any slight amount of gasoline which may escape from a fuel tank after it is pierced by a bullet and before the hole seals itself. These coats absorb the escaping fuel almost as soon as it leaves the tank.

Marine-Inch Sheets—The foamed synthetic rubber, Airfoam, is produced in sheets, which a quarter of an inch thick and as the bullet-sealing fuel cell is placed the single sheet goes or elsewhere. The sheets are fitted in at within the wing. Large quantities of natural rubber aircraft were provided for the fuel-cell coats before synthetic rubber was adopted to use this.

AIRCRAFT PRODUCTION

Plane Plant Deliveries Climb To 97 Percent of Schedules

Industry turns out 8,789 aircraft despite changes in design and constantly expanded requirements; Nelson cites results as proof of scheduling and follow-up policies.

By SCOTT HERSHY

Significant feature of aircraft production in November—a new high of 8,789 planes—is not so much that it has made "production miracle" an achievement as it is that deliveries were 97 percent of schedules.

The industry has vivid recollections of production months that exceeded all previous ones but believe that while production was good, it was still below schedule, a situation that has prompted unkindened critics of the industry to contend that the airplane makers were falling down on the job somewhere along the line.

► **Scheduling Policy Bears Fruits**—In his formal report on November aircraft output, WPPS Chairman Donald M. Nelson emphasizes that scheduling and production follow-up policies, initiated and carried out by the Aircraft Production Board, have borne fruit with deliveries virtually on the schedules.

This statement is the more interesting in view of the fact that this program is headed up by WPPS Executive Vice-Chairman Charles E. Wilson whose immediate plans for recognition were opposed by aircraft industry leaders. It does not mean that it should not be overlooked, that an integral part of the success of this program lies, too, with the Aircraft Resources Planning Office, of which T. P. Wright is the head.

► **Miracle**—As Nelson points out, the sustained accomplishment of the aircraft industry and its workers is almost unbelievable. The increase in numbers does not tell the whole story. His figures back to July, 1940, when 872 engines were produced. More than twice that number were produced in two days in November, 1943, and the month's total was more than 15 times that of July, 1940. During the 30 days in November, airplanes rolled out of our plants day and night, faster than

peaks. That represents an increase of 25 fold from July, 1940.

While Nelson expressed satisfaction with the record, he said emphasis still must be placed on need by the Services for even greater numbers of yet larger planes, as not only man battle losses be made up, but striking power must be continually added to.

► **In Spite of Obstacles**—The Aircraft Production Board, in cooperation with the Services and the industry, as determined to increase aircraft output in spite of the obstacles presented by the continuing increase in size of planes, by shortening of manpower and by introduction of necessary changes in types and equipment," Nelson said. "This will be accomplished by concentrating its efforts on production efficiency and manpower utilization."

In this, Nelson has the support of the industry. James P. Murray, Beech vice-president and president of the Aeronautical Chamber of Commerce, in his monthly report also pointed out that the increases in numbers is largely in heavier planes giving a vast increase in average weight of delivered aircrafts.

► **Weight True Measure**—The true measure of the output is in the weight, net units, and the total weight, including spare parts produced last month was \$1,900,000



RECORD-BREAKING PRODUCTION:

The production by General Motors' Chevrolet division of Pratt & Whitney engines is shown in this final assembly plant, one of 17 units in the Chevrolet manufacturing system devoted to this particular project. These engines are being prepared for shipment.

Beechcrafts at work



WHEN THE RAIN ROARS ON YOUR ROOF—and you are snug and warm—remember this picture of an AT-11 Beechcraft ready to take off as soon as the bombardier and instructor climb aboard with the bombsight. Our Army and Navy airmen have to fight in all sorts of weather, and therefore have to take training instruction in the same assorted varieties of weather—by day and by night. * * * The safe return of these airmen from the stormy night skies depends largely on the skill and care exercised by the men and women who designed and built this Beechcraft, and the thousands of its companion Beechcrafts being used by our armed services in training bombardiers, pilots, and navigators. Because all Beechcrafts realize and accept this responsibility, these military Beechcrafts, like their commercial prototypes, have earned under the most rugged conditions an outstanding reputation for dependability and efficiency.



OPTIONAL PHOTOGRAPH U. S. ARMY AIR FORCES

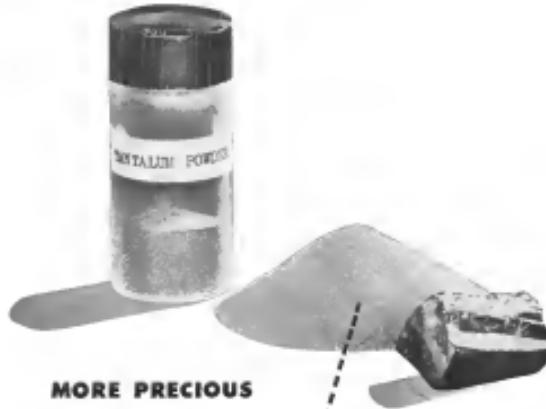
Beech Aircraft



C O R P O R A T I O N

BEECHCRAFTS ARE DOING THEIR PART

WICHITA, KANSAS, U.S.A.



MORE PRECIOUS THAN GOLD

Tantalum is one of the earth's rare and unique metals. Rare because it is mined in only a few spots in the world. Unique because it is the only metal that readily absorbs gases.

This ability of tantalum to soak up and retain gases—even while being subjected to intense heat—makes tantalum priceless in the manufacture of electron tubes.

Up until the time Heintz and Kaufman engineers built the first vacuum tubes with tantalum plates and grids, the electronics industry had to rely on chemical

"gizzers" to absorb gases. These chemicals are not stable—the heat from an overloaded plate causes them to release gas suddenly, and the tube goes dead. One of the reasons you will find so many Gammatrons in use where dependability is essential, is that all Gammatrons have tantalum plates and grids. They can and do take heavy overloads safely—overload which would cause any other type of tube to cease functioning.

HEINTZ AND KAUFMAN LTD.
SOUTH SAN FRANCISCO - CALIFORNIA, U.S.A.



Gammatron Tubes

TANTALUM.
(ATOMIC WEIGHT 108)
IN MINERAL AND POWDERED FORM

contractors have performed along with the major aircraft manufacturers, since they all go together to make up the finished plane.

Boeing, for example, set an all-time record for production of P-51s for the government last month. Production was about ten percent higher than for October.

Contributing Factors—P. G. Johnson, Boeing president, said the record was made possible through further increases in employment, fuller development of the branch plant program and continued improvement in the company's quantity production technique and manpower utilization. Johnson emphasized that there must be a further substantial increase in December.

Another example of factors contributing to the output was the report of M. A. Doyle, Chevrolet general manager, who was vice-president of General Motors Corp. He announced a new all-time high for overall engine production when Chevrolet Motor division turned out the largest single month's production ever attained in the aircraft engine field.

Engines Reward Set—Doyle and the mark was set in the production of 1,000-hp 14-cylinder engines, pointing out that Chevrolet's first Pratt & Whitney engine was completed just 20 months ago.

An interesting phase of the month's production picture was an unusual announcement by the Navy Department that they accepted well over 2,000 transports and then added to that figure recently almost 2,000 fighters and bombers.

New Fighter Types—Fighter production was especially pleasing to the Navy, particularly in view of the fact that the Navy introduced two new types of fighters this year, the Chance-Vought Corsair and the Grumman Hellcat, and such changes-over in production always cause delay.

Navy and companies on schedule or ahead of schedule during November were: Chance-Vought Division, Division of Aircraft, Eastern Air Craft Division of General Motors Douglas, Grumman, Consolidated, Vultee, Martin and Vega (now consolidated with Lockheed).

Navy Maps Policy on Contract Termination

Knox names Capt. Lewis L. Sosman to head readjustment group.

In order to bring Navy Department activities in line with government policies on contract termination,



BREWSTER BERMUDA ON THE WING:
This unusual flight photograph shows the Brewster Bermuda dive-bomber, camouflaged and carrying RAF markings. Wing bands are carried as marks. Brewster's production, which has been under investigation, has shown marked improvement in recent weeks, say Washington officials

property disposition and related matters. Secretary Kaas has established the position of Assistant Chief of Procurement and Material for Industrial Readjustment and appointed Capt. Lewis L. Strauss to the new office.

Capt. Strauss will have under his direction the establishment, supervision and coordination of all Naval policies and procedures regarding

military readjustment and related matters. He will have additional authority as special assistant to the Under-Secretary of the Navy and the Vice-Chief of Naval Operations in order to discharge his responsibilities. Capt. Strauss reported for active duty with the Bureau of Ordnance in February, 1943, as staff assistant to the Chief of the Bureau on technical matters.

Ryan Suggests Plan for Utilizing Surplus Planes, Plants After War

Urge in statement that warcraft be held in reserve for emergency rather than dumped on market; wants U.S.-built factories used as vast storage warehouses.

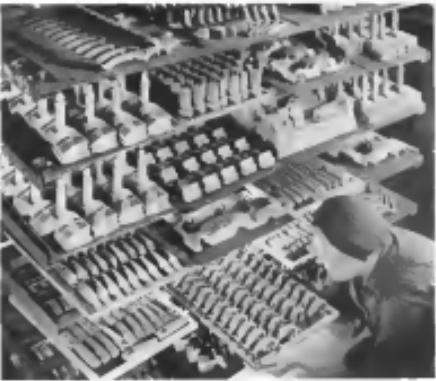
Attitude of the aircraft manufacturing industry on disposition of surplus aircraft and of government-owned aircraft manufacturing facilities—a major problem—is beginning to crystallize to some extent, although there is by no means unanimity of thought.

The industry does appear to be agreed on two points—they want no dumping of surplus aircraft on the market and they are opposed to the government taking over and operating war-built plants for aircraft manufacture.

Views of Industry—Various views have been expressed by industry leaders, most of them informally, least T. Claude Ryan, president of Ryan Aerautical Co. and head of the Aircraft War Production Council, West Coast, has come forward with some concrete suggestions which, because of his position in the industry, are bound to receive close study.

Ryan proposes that factories, built by the government for war production and not needed for airplane production after victory, be taken out of production and used solely as government warehouses for storage of left-over war planes.

Plant Disposal—As regards the



MOLDS FOR AIRCRAFT ENGINE PARTS

Looking like pastries produced by a master baker, these cores form molds into which magnesium is poured at a General Motors plant to cast aircraft engine parts. These shores above are ready for the oven at a magnesium foundry. "Decimated" of special core sand, these units are hardened, then stripped outside the molds to create the forms for the casting of intricate engine parts from molten magnesium.

plants, Ryan points out, that involved in the facilities due to the fact that development of design will make current planes obsolete, in Ryan's opinion "in four to ten years at the outside."

► **Emergency Plan**—However, even if part obsolete, he takes the position that it would prove unnecessary to scrap existing aircraft entirely because of the large number already available and that after more up-to-date types were made, they still would be useful in wartime for transport and training.

Ryan believes these plants, possibly saved for, should remain in an available condition for 20 to 50 years, depending on their type of construction. Contrary to this view, there are government economists who believe a large number of these plants will have no future utility, particularly those of emergency construction.

► **Storage Facilities**—Many are adjacent to plants owned by established aircraft manufacturers and Ryan believes it would be wise for the government to make provision whereby portions of these plants could be taken over from the government periodically as required by aircraft manufacturers.

Taking to the storage of surplus warplane, Ryan contends thus would have a parallel advantage for a period of years, somewhat less than

the years overboard our American free enterprise system."

The last seems now to be finally accepted, as Ryan points out, that our national security can be safeguarded only by maintaining aircraft manufacturing and operating on a large, healthy basis.

► **Takes Medium Ground**—Ryan takes the position of most sound among that the future of the industry lies somewhere between the views expressed by aviation enthusiasts who permit their imagination to run wild on war hand, and those prophets of gloom on the other who predict a complete and total aircraft industry as soon as war orders cease.

He contends that the rising curve of aircraft production which existed before the war should be picked up at a point higher than where it was broken by the war-imposed demands. Ryan is of the belief that if aircraft development, private ownership and other commercial utilization take place on the scale that is feasible and within the grasp of the country, there should be a large, sound and continually expanding aircraft manufacturing industry in the United States.

► **Outlook**—Ryan expressed his views on wartime posts in positive manner in an especially prepared paper to meet various requests for aviation prospects. In it he emphasized that we should have no illusions that the almost unbelievably vast needs on which aircraft are manufactured for emergency demands—estimated at seven times the dollar volume ever reached by the automobile industry—can continue and that it must be adapted to proportions that the peace-time market will rarely

► **Readjustment Leader**—"Air transportation and manufacture," he said, "ought to lead in postwar readjustment and the re-employment of our people."

In this connection, Ryan holds that a strong air transport system, government-owned in its early stages, but privately operated will keep the aircraft industry strong enough to discourage any other country from trying to outbuild the United States.

► **Privately-Owned Aircraft**—The scale on which private-owner aircraft will be used after the war, are of the industry's highly controversial subjects, will depend, in Ryan's opinion, on individual economic prosperity, capacity with which some of the more important technical developments can be adapted to peacetime uses and whether the government establishes a sound plan of encouraging private ownership and operation of aircraft.

The Light that MUST NOT FAIL

Copyright 1946, Swift Parachute Co.

AVIATION NEWS • December 18, 1946



SWIFT PARACHUTE COMPANY
Trenton, New Jersey

Pull... Pull... Slide...
Pull and pull again. So it goes, as yards of silicon safety chutes pass over a frosted glass window. Through it, a powerful light blinks while keen eyes search every stark detail of triple-stitched seams, alert to detect any dropped stitch, break or snarl. This is a light that must not fail... for here, truly, life hangs on a thread. * * * Swift workers are exceedingly proud of their contribution to the jumper's sense of confidence during those moments of lateral suspense between plane and earth. * * * The skill these craftsmen have developed is a tribute to Swift's engineering methods in design—the best parapente that can be made—and setting new records, as well, for production and delivery of this Swift Safe-T-Chute. *

Bendix Speeds Output Of Air Instruments

Reports 375,000 units a month turned out by Edipac-Pioneer division.

Production of more than 10 basic types of scientific aircraft instruments and engine components at a rate of 375,000 units per month has been accomplished since West Harbor by Edipac-Pioneer division of Bendix Corporation and sales subsidiary.

Raymond P. Lazarus, vice-president, is disclosing the production rate, and that measured by dollar volume, the division's total monthly output has increased more than seven times over pre-Pearl Harbor levels, while unit differences have increased as much as 200 times over 1941 levels at many instances.

Operations 50 Plants.—The division, one of the largest units of Bendix corporation, operates 39 plants and 100 service centers, said the Belgian Pioneer division now is a center for engineering, development and manufacture of the greatest variety and volume of precision aircraft equipment produced at history.

One of the chief centers of the production is at Teterboro, N. J., where the division develops and manufactures such equipment as aircraft engine starters, generators, air and hydraulic pumps, auxiliary power units and a complete line of flight and remote indicating instruments. The division also produces magnesium, aluminum and other metal products; magnesium in its own foundries and magnesium products optical lenses and prisms.

Floor Space Doubled.—In two years, Lazarus said, the division in its New Jersey plants has doubled its operating floor space and total number of employees. Five new plant structures, in addition to the ones already in operation before America's entry into the war, have been purchased, built or rented in nearby New Jersey communities to accommodate overflow of production and other activities that overtaxed the capacity of the main Teterboro plant and its branches.

An intensive program of subcontracting has placed major units in areas of the required production volume of aircraft equipment developed by the division's engineers.

New Production Equipment.—Design engineers, Lazarus said, have concentrated on designing and developing special production equipment designed to make efficient performance by newly trained workers

of the type familiar to light plane operators in this country.

Replacement Engines.—War Training Service also has ordered a substantial number of Franklin engines for replacement purposes in the primary training planes. This order includes two models, one 45 hp, similar to those for Bland and the other a 90 hp model.

These orders are in addition to continuing production of several other Franklin engines designed by Aerocool Motors for the Army Air Forces.

New Franklin Orders

Bendix buys Aerocool Monotec Corp. engines for primary trainer planes.

Aerocool Motors Corp., of Syracuse, N. Y., has received two new orders for Franklin aircraft engines, indicating increased interest in this type as primary training planes.

It was disclosed that the Brazilian government had purchased a quantity of Franklin 85 hp engine, which will be used to power training planes in which Brazilian military and naval pilots receive primary instruction. These are basically opposed, air-cooled engines.

Bigger Glider

First production flight tests of the new Army YCG-13 glider, developed by the Douglas Aircraft Co. for Army Air Forces glider programs, were made at Minneapolis, where the huge new craft has been manufactured by North American Aviation Corp.

John E. Parker, North American project manager, said the new glider is likely greater than that of the twin-motor Douglas DC-3 and its function will be "entirely different" from that of gliders previously used in military operations.

Test flights in the fighter version by Lt. Col. George B. Price, chief of the Wright Field glider branch.

Credit for design of the new glider goes to Waco Aircraft of Troy, Ohio, whose chief engineer, Francis Averitt, has done the original work of design and work for the Army Glider program. The 18-place CG-13 glider, which has already been used in combat and the surface-to-glider glider, used principally for training, were also designed by Averitt.

The YCG-13 is expected to be taken to Wright Field or to the Clinton County experimental glider base, at Washington, O., soon for further tests and flights

Job Placements

The United States Employment Service during July, August and September found jobs for 1,114 in the aircraft and aircraft parts industries, of whom 104,329 were women.

In a report of its activities the Service said 63,196 were classified workers. Professional and managerial total was 2,037, service employees numbered 5,179, clerical and sales 18,765, skilled 55,855 and semi-skilled 47,515.

Parts Group Grows

Eight new members have been added during the past month to the already influential Aircraft Parts Manufacturers Association in Los Angeles. They are Aircraft Belli and Rivet Co., Pasadena, and seven Los Angeles firms: Continental Specialty Co., Ltd., New Plastic Corp., Precision Manufacturing Co., Quality Engineering Works, Inc., Southwest Technical Products, Inc., Western Air Welding, Inc., and Western Sales Products Co.

Labor Saving System

Substantial labor savings in various Douglas aircraft production departments are reported by Henry E. Guinn, plant manager, through a new technique of pre-planning each stage at the mill to specific design.

With the mills pre-shaping raw metal materials, as explained, cutting of flat stock at the plant is reduced, saving manufacturing man hours, while eliminating return of transiting and surface scrap effects a saving in transportation.

Guinn said this step is in line with the Douglas policy of utilizing manpower in direct assembly to the fullest, and that it is a refinement of the fast-lane tool push-dispatch system

of the type familiar to light plane operators in this country.

Replacement Engines.—War Training Service also has ordered a substantial number of Franklin engines for replacement purposes in the primary training planes. This order includes two models, one 45 hp, similar to those for Bland and the other a 90 hp model.

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PERSONNEL

Two appointments to the research and planning staff at Chicago and Seattle Air Lines were announced. New assistant to the director, who has not yet been named, is Thomas Miller, Chicago, for the past 17 months.

Iahoma City University, which also has participated in the CAA pilot licensing program for several years and operates its own airport.

George R. Core, San Francisco area traffic manager for American Airlines, has been appointed general traffic manager for American Airlines in Mexico. The appointment was made on Los Angeles by A. H. Bunn, Jr., western traffic manager. Core has been with the air line since 1937. He is succeeded in San Francisco by Bill DeWees, with American for the past year, and for fifteen years previous, with Pan Am, and with 18 years Pacific Northwest stewardship.

Mary Wadsworth, at Atlanta, Ga., has been appointed chief stewardess for Delta Air Lines.

The daughter of W. L. W. Wadsworth, Jr., manager of Atlanta, she attended Briarwood College in Gainesville, Ga. Miss Winterberger joined Delta Air Lines in 1940, and since 1941, she has been

going as regular stewardess for the past 14 months. She married Miss

Wadsworth to be married.

Al Williams, former Naval and Marine Corps pilot and well known aviation management, is starting on another tour of Army Air Force Flying schools to demonstrate precision flying for members. In his capacity as a civilian technical consultant, he will be assigned to the Assistant Chief of Air Staff, Training. Williams will demonstrate a routine of spins, rolls, loops and stalls in a fighter type aircraft. Following this, he will explain in informal manner the techniques of solo aerobatics in flying various planes. He will operate from the Fort Worth, Tex., headquarters of the Training Command.

Bruce Otoe, director of CAA Pre-Flight Aeromotor Program, has been awarded a Doctor of Laws degree by Oklahoma City University for his services in aviation education.

This degree was the third aeromotor award by the University in seven years. The first, in 1938, was to Dr. E. M. Robbins in recognition of his outstanding career past, as shown above. His work formerly chairman of the aeromotor faculty was offered by Okla-

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Baldwin, Jr., Baldwin, Jr., Bonn

Various shifts in station management personnel were announced by United Air Lines. W. McVay, station manager of Allentown, Pa., has been transferred to the dispatch office at Lakewood Field. He is succeeded by Eugene Bellord, Jr., former station attendant at Moline, Ill. E. A. Bassett, acting station manager at North Platte, moves to Cheyenne as manager, and John S. Lewis becomes

station manager at South Bend, Ind., where place is taken by G. Daniel Baum, station attendant at Des Moines.

In line with reorganization of airport maintenance facilities both in Miami and at the West Palm Beach air bases of Pan American Airways System, the office of construction engineer, headed by Frederick J. Gehres was abolished, and Gehres was named superintendent of airport and maintenance for the Caribbean area. Gehres succeeds the late George F. Key, Pan American's first project in Key West. Concurrently W. F. Gehres was named division superintendent of airport and maintenance for the Caribbean area, with W. E. Thom as his assistant.

Southern California Soaring Assn. elected Miles Steagall, chief designer in development engineering at Valdez Field, as director of the organization. Steagall has been at Valdez Field since July, 1939, and is a former director of the Soaring Society of America.

Major John S. Macfie has been relieved after two years of duty in public relations work at Wright Field. Major Macfie, who has been selected to set up a new public relations department for the newly activated War Information Bureau, Wright Field Headquarters, Air Materiel Command, Air Forces. He will be located at Redstone Station No. 3, Santa Monica, Calif.

E. H. Hall, formerly chief design engineer at the Boeing plant of the Atlantic Lathron Steel Corp., has been appointed chief engineer of all plants of the corporation, according to a recent announcement by F. B. Launberry, vice-president, manufacturing



NEW WRIGHT FIELD BOSS

Col. Randolph Fink, who assumes post of commanding officer of Wright Field, with the departure of Col. E. M. Robbins to an unselected overseas post, is shown above. He was formerly commandant chief of the equipment laboratory at the field

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America's New Source of Aluminum Ingot • Sheet Extrusions • Wire • Rod Bar • forgings • tubing Foil • Powder . . . and Finished Aircraft Parts

Shortening the steps from Bouxite to Bomber . . . Having built the first and only plant in the country where bauxite comes in at one end and aluminum sheet rolls out the other, Reynolds now carries the process still further . . . making finished aircraft parts right at the aluminum source.

Since savings from these parts averages 30%, Reynolds pre-fabricators saves aircraft manufacturers valuable storage space and labor . . . saves America precious shipping space and inevitable waste in handling. Reynolds turns out finished parts, quicker...and puts the slogan "back into the scrap" immediately.

For "flying aluminum," call for a Reynolds Sales Engineer . . . available throughout the United States.

REYNOLDS METALS COMPANY

PARTS DIVISION • LOUISVILLE • KENTUCKY
GENERAL OFFICES • RICHMOND • VIRGINIA
28 PLANTS IN 15 STATES



Reynolds aluminum and finished aerospace parts start in this Arkansas bauxite mine. Reynolds mines more bauxite per year than had ever been mined yearly before the war in the United States.



Aerial view of Reynolds plant at Lutcher, Louisiana. Here bauxite is cut and ore elevators take the aluminum to reduced iron elements and the aluminum is cast, alloyed and fabricated into sheet and rod.



Lutcher, tall aluminum alloy forging stock, boxed and Army-Navy inspected, ready to be turned into aircraft propellers.



View of the Reynolds 200,000 sq. ft. expansion of the Parts Division in Louisville. New equipment includes great 3,000 ton hydraulic press.



HUNTER HEATER READIES MOTOR ON COLDEST DAY IN FEW MINUTES

Quick-on Duct Connections Permit Easy Set-Up of "Cold-Starter" Device

BURNS ANY TYPE OF GASOLINE



CLEVELAND, OHIO—Details of a gasoline heater made by Hunter and Company of that city for preheating and starting all engines quickly by warming up an internal gas-filled heat exchanger heated by natural gas or kerosene. Advantages claimed for the Hunter device are its lightness, simplicity of design, and the fact that it is compact so it can quickly be set up and taken down, and the fact that it operates on any type of gasoline at hand.

The Hunter preheater weighing approximately 10 pounds is designed for a 100-hour run and no adjustments have to be made through the engine, knowing by means of built-in checks that this makes of heating time. This makes the device an efficient solution to living in a very extreme temperature in a matter of minutes, even in winter weather.

Double ducts are provided which convey the heater to the breather pipe of an engine cow, as shown in the photograph. When the device is used, they can be quickly switched with the aid of a simple handle provided with the equipment. Allowance is made for extremely rapid starting of cold engines in sufficient volume to living in a very extreme temperature in a matter of minutes, even in winter weather.

Double ducts are provided which convey the heater to the breather pipe of an engine cow, as shown in the photograph. When the device is used, they can be quickly switched with the aid of a simple handle provided with the equipment. Allowance is made for extremely rapid starting of cold engines in sufficient volume to living in a very extreme temperature in a matter of minutes, even in winter weather.

Rapid heating and reheatification of cold engines is also obtained with the use of a double handle provided with the device. This allows a saving of 10 percent of the energy. Then when the engine warms up, there is enough air to proper temperature, the oil pump, cylinders and valves also are preheated. There is also a savings across the entire engine when the engine starts.

This simple device can be detached from the heater and used as a portable plane heater, or used to blow hot air over an area where mechanics are working in low temperatures, or for a number of special services in addition to its primary purpose.

Complete information on the Hunter Preheater may be obtained by writing or visiting Hunter & Co., 1940 E. 13th Street, Cleveland, Ohio.

Advertisement

standing stock, compared to 22 cents a share in the previous fiscal year.

Revenue Up—Commercial operations showed gains, although a decrease in 12.5 percent occurred in express rates. Non-airline passenger revenue, which was 223 percent over the year ended June 30, 1945, expressed pounds were 147 percent higher.

The total of 12,597,784 passenger miles for the 1945 fiscal period was 61 percent higher than 1942. Revenue passenger carried were up 45 percent. Passenger revenue was \$86,074,394, or 66 percent higher than the previous year, approaching for the first time in the company's history the level of total revenue. The total figure of \$86,074,394 was 7 percent below 1942 total revenue.

Despite the drop in total revenue, passenger of 66 and 67 percent were shown respectively for pounds of mail carried and total pounds operated.

Load Factor of 78 Percent—Continental's passenger load factor was 78 percent for fiscal 1945, a 92 percent increase over fiscal 1942. With its equipment going to the array, the line flew about 90 percent of the previous year's revenue miles.

Terrell C. Drachman, executive vice-president, credits three factors for the increase in net income, which he considers a "subject to any adjustments that may be made by Army Air Forces" and of the "most important" being "efficiency through reorganization of Army contracts."

The three were increases in passenger load factors and revenue passenger and express miles, elimination of round trip and air travel plan discounts effective July 1, 1942, and income from army contract operations.

No Right-of-Way for Practicing—The report compensated Louis H. Mueller, chairman of CAL's Board of Directors should be analyzed "with care, in view of the company's competitive activities," and is regarded as representative of the company's activities under normal conditions.

Budd Reports Refund Of 15 Million to U. S.

Manufacturing company turns in \$9,000,000, wheel fine \$5,750,000.

Renegotiation of contracts by the War and Navy price adjustment boards resulted in refunds of about \$13,885,000 by Edward G. Budd Manufacturing Co., and Budd Wheel Co.

Edward G. Budd in a letter to stockholders said the refunds included \$8,868,000 by Budd Manufacturing Co. and \$5,750,000 by the Wheel company.

Heavy Tax—Cloudy—Budd said that the company after tax credits amounted to less than \$4,120,000, explaining that the balance would have been recuperated by the Government in excess profit taxes if the refunds had not been agreed upon.

He said the refunds left 1945 profits of Budd Manufacturing, reported as \$5,722,000 before renegotiations, at \$3,723,000 and Budd Wheel, at \$3,332,000 before renegotiations, at \$1,342,000.

GM Production Rate \$12,500,000 Daily

Fifty percent of output is in aircraft field, Wilson reports

Approximately one-half of General Motors' current war production is in the aircraft field—complete planes, engines, propellers, sub-assemblies and parts.

C. E. Wilson, president of General Motors, reports the corporation is producing war materials at a rate exceeding \$12,500,000 a day.

3,300 Bombs Produced

The corporation, Wilson reports, with its network of subcontractors and suppliers, is producing more than 3,300 separate items for war use. These range from ball bearings as small as 1/16 inch to 100-ton bombs, and the 100-ton bombs, which are made of machine gun. Without fighter planes, Avenger torpedo bombers, aircraft and antiaircraft gun and aircraft engines.

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Ramsey Lauds Corsair

Rear Admiral DeWitt C. Ramsey, chief of the Bureau of Aeronautics, in ceremonies awarding the Army-Navy "E" to the Chance Vought division of United Aircraft, told workers of "Corsair" is making aviation history.

He cited our specific reports recently received from a Marine Air Wing: "The Corsair can climb faster and better and has more speed than the new Zero. Moreover, we are assured so much better than the Zero that it flies faster and lower down. In our first big encounter with enemy craft recently, four Corsairs, piloted by Marines, partly destroyed and turned back a flight of 18 twin-engine bombers encircled by 20 to 30 Zeros."

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THE AIR WAR

COMMENTARY

Axis and Allies Step Up Research To Produce Best Fighters, Bombers

Germany, fighting on interior lines, has edge on logistic situation but Allies are gaining upper hand in matter of numbers.

Until the war is concluded by a clean-cut decision, the struggle for better fighters and bombers will continue at breathless speed. At present, the Axis powers have a decided edge in the logistic situation, fighting on interior lines, and able to shift their strength with reasonable facility as various points are threatened.

In the matter of numbers, the Allies, despite 3,000- to 15,000-mile supply lines, are beginning to have the upper hand. As so quickly, in spite of the undoubted excellence of the Luftwaffe's latest ME-109 and FW-190 series, the Ju-88 and ME-410 day and night fighters-bombers, and the improved Jap fighters, Mess (formerly Bap), Tejo and Tora, the Allies probably have a slight edge. However, Germany's extensive aeronautical research facilities, even in at least four power Wright Field, will pull some remarkable surprises out of the hat with, temporarily at least, could those serious monkey wrenches which the allied air campaign just now getting into high gear.

Speedy Improvements—In modern air warfare, speed in adapting the latest battle-tested improvements is of the essence. It is a fact that America's gigantic aircraft production set-up, now racing at the break-neck speed of a finished airplane every five minutes, soon to attain a rate of 15,000 per month, is also elastic enough so that improvements come through as fast as in the case of planes each day's production of a particular model may be slightly better than that of the previous day.

How the Changes Come Through

To get the life-or-death improvements into the mill with all possible speed takes organization and teamwork of the highest order. At the top level in the Army Air Forces, two divisions of the Air Staff share this important responsibility. One is

equipment and tactics for fighting the Japs or the Nazis.

Pleasing the Civilians—Another outfit, not as well known, is the office of the Assistant Chief of Staff, Operations, Commitments and Requirements (O, C & R), Brig Gen Howard A. Craig. The comprehensive functions of this division include, among others, that of finding out what the boys who are fighting our war in the air really want, and then seeing that they get it. Reports are constantly flowing in, and these reports are checked and rapidly reviewed and experts.

Through Gen. Echols' Material, Maintenance and Distribution division (M, M & D), the changes can be made with a minimum of delay through the distinctive American system of modification centers set up by each aircraft manufacturer, maintained by the company or by others, whichever is the most efficient in any given case. Gradually the changes are worked into the next aircraft as the regular production line and in the meantime still further improvements are being developed in the "seed centers." Examples include: add fuel tanks, change of gun positions, electric turrets in the nose to meet head-on attacks, long range drop tanks, improvements relating to instruments, safety, emergency escape, deadening of sound, new spots for armor plate, etc.

General Arnold's "Mestis"

—An inside look at an aircraft carrier deck during the Korean War. The deck is crowded with aircraft, some in flight, others parked. The background shows the ship's superstructure and other aircraft carriers in the distance. The scene captures the intense activity and coordination required in aerial combat operations.

INSIDE AN AIRCRAFT CARRIER:

A hangar deck on a new U. S. Navy aircraft carrier, seafarers photographed, is shown here in temporary use as a storage hold until supplies can be put in proper places. Photo gives an indication of the staggering amount of material needed by a fleet-top for a long duration. Planes are on the flight deck.

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OUTREACHING means OUTPUNCHING

The largest streak of lightning in the world is lashing through the dozen Super-range Lightning P-38 fighter planes sent up with heavy bombers to deal knockout blows at distant targets.

On the production front smoothly-operating teams of Rohr production fighters were round the clock to help Lockheed put more and more of these outreaching P-38's on the wing. They use their skills to add new punch behind the challenge of increased production. They work to save the lives which will be spared by quicker victory.

HELPING TO WRITE THE STORY OF TOMORROW



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outstanding example of the value of first-hand observation and report is the list of "want" improvements Gen. Arnold dropped on the aircraft industry after his visit to England in 1942. It is the rapid incorporation of these findings which enabled that country to catch up so rapidly and which served to give our flyers a greatly needed advantage during the early delaying actions of the first few months of our war with Japan. These included self-sealing fuel tanks; armor protection for pilot, crew and vital parts of the plane; nose and heavier caliber guns and aerial cannon; power-operated turrets for bombers; supercharged engines and improved oxygen supply for high altitude operations; and improved headgear, automatic pilot and navigational instruments for low-level all-weather operations. Many of these were worked in quickly; others, requiring longer research and development, are just coming into the picture. All are a result of battle-tested ideas.

Further Improvements Ahead—It is impossible to get full details of many items of which fascinating hints have been dropped from time to time, but which will be coming along on the wingspan of the next distant future. Six-blade counter-rotating prop, engines of 2866 hp and higher; more powerful fuels, pressurized cabin, remote fire-control, jet propellers and rocket devices—their other uses are the subject of strenuous research by all the leading powers.

—NICHOLAS

Planes Score Heavily In U-Boat Defeat

Major role revealed in annihilation of anti-sub patrol job by Navy.

Coincident with announcement that the Army Air Forces had withdrawn from anti-submarine operations and that the Navy had assumed full responsibility in a compilation showing first aircraft scored heavily in submarine sinkings in August, September and October.

During this period, 21 enemy submarines were sunk by carrier-based planes, one by a long-range Navy patrol plane, one by Army and Navy aircraft working together, one by carrier and surface craft working together, one by Army aircraft and two by destroyers for a total of 27. Body submarine were counted as officially destroyed by United States and British forces during the three months.

► 90 Sink in Three Months—Navy officials pointed out that during May, June and July, United States and British forces destroyed 20 U-boats. U.S. Naval surface craft claimed two, naval surface craft and naval aircraft combined one carrier-based planes nine, an unreported navy type, one, five by Army aircraft and eleven by Navy long range patrol planes for a U.S. total of 20.

► Navy Takes Over—The Navy has now acquired sufficient planes and trained sufficient crews to take over

complete responsibility against the submarine. Army planes operating against U-boats were all land-based and operated in connection with several theaters of operation.

Jurisdiction in the battle against the submarine has been a lively discussion topic since Pearl Harbor. An outgrowth of the Post Barber Committee, which June 8, 1941 had been charged in anti-submarine activities, the Army Air Forces Anti-Submarine Command was activated in October, 1942, under Brig. Gen. Westside T. Larson.



AAF'S FLYING NURSES ARE NOW IN CHINA:

These scenes at the Army Air Forces School of Air Evacuation show stages in training flight nurses for transporting wounded troops. The Army has just announced that the first unit has arrived in China. Equipment for transport includes a modified C-47, in front of which aids are shown classifying patients by means of white field tags. Other scene pictures a aircraft demonstrating to flight nurses how to convert a standard Douglas transport into an ambulance plane in eight minutes.



Free Enterprise

THE OPPORTUNITY AND OBLIGATION TO COMPETE

WE can be prosperous beyond our dreams—all of us—workers, farmers, and business men—but one of the prerequisites is the self-discipline of accepting competition for ourselves as well as others.

Free enterprise does not imply the freedom to use any or all means to make a profit. It does not mean the right to monopolize. It means the opportunity and obligation to compete.

Competition requires independence of action, free access to the market, and no large degree of control over the price by any buyer or seller. In general, the larger the number of sellers and the more easily buyers can shift from one seller to another, the higher will be the degree of competition (and vice versa for buyers).

But let us not get too academic or go off the deep end. We cannot have perfect competition. We cannot subdivide businesses and labor unions into tiny units to make a multitude of buyers and sellers in each market we cannot reduce our rich variety of products to a few rigidly standardized items; we cannot educate people to judge quality precisely; we cannot eliminate the costs of bridging space between buyers and sellers. On the other hand, we have gone as far as is practical and desirable in these directions?

We cannot even have a system of highly "sensitive" prices, that is, prices which fluctuate immediately in response to every minor change in demand and supply. The world over in the dozen world of competition-to-a-finish, it cannot occur in the real world, or even in the ideal world of competition best suited to physical facts and human qualities. The economies of large-scale enterprise, the need for adapting products to human wants, the costs of transportation and the costs of issuing and acquiring market information put severe limits on price sensitivity.

Economists tell us that if prices were extremely sensitive, business booms and depressions would be much less severe—justified our stock of money remained fairly constant. But with the somewhat limited degree of sensitivity which is practicable in the economy, price and wage changes cannot prevent severe declines in

business activity. We cannot cause an competition alone to cure depressions. We must look mainly to other kinds of measures to prevent mass unemployment of men and machines.

If we cannot base prices which fluctuate with every small change in demand and supply conditions, we can work toward—and achieve, if we really want it—a system in which prices and wages are at least roughly responsive to long-run changes in demand and supply, a system in which most markets are not dominated by individual businesses, groups of businesses, labor unions, or farm organizations, and in which prices and wages are maintained at levels consistent with free access to markets and to jobs.

In any kind of an economic system there must be some means of determining prices, wages, and profits, and of bringing labor and capital into employment in the industry and place where they are most needed. There are two ways to do this by administrative fiat or by the impersonal processes of the market. The first of these is typical of the totalitarian state; it frequently involves destruction of individual freedom or fulfilling management. During the war all of us have had some experience with paternalistic and paternalistic treatment by the state; we have found out what it means to be pushed around by bureaucrats; and we have discovered that the political determination of prices, wages, and profits leads to chaos when self interest supersedes the fine fever of patriotism—as it eventually does. I do not mean to imply that we can do without controls over prices, production, and distribution in time of war, but I do suggest that we can learn something from their operation. Even with a united national purpose these controls work badly when human abilities are inadequate for the superimposed task, when personal or departmental jealousies crop up among officials, and when present groups try to prey on the rest of the public. Every day more Americans are beginning to understand why our forefathers feared the opacity and tyranny of power.

The impersonal processes of the market in determining prices and wages and in allocating productive resources will, in normal times, save us from the bickering of bureaucrats and from the babel of confusion, un-

certainty, and annoyance produced by their regulations. But these market processes will not save us from paying toll to those who monopolize and restrict entry to markets or jobs.

If we want an economy in which we are free to try out new ideas, develop new products, and introduce more efficient methods of production, if we want an economy in which there are great opportunities for men of imagination, inventiveness and energy, if we want an economy wide open to progress, then we must have a free field and fair competition for all—concern without collusion as to prices, markets, or production. This is the only basis on which we have a right to demand freedom from governmental regulation for ourselves and on which we can combat monopolistic tendencies in other quarters.

Let us stand squarely for the principles of the anti-trust laws and against all collusion and combination in restraint of trade. Let us insist that the government review with a critical eye every combination and consolidation which might restrict competition. Let us face frankly the problem of economic power arising out of price leadership and encourage every honest effort to find means to deal with them. Let us not shrink from questions as to whether some great aggregations of plants are too large for efficiency, free entry into the industry, and a free price. While we want the efforts of the Department of Justice to extend the anti-trust laws by detached and distorted interpretation, and while we fight every attempt to use them as a tool of persecution, let us cooperate in sincere efforts to modernize these laws and extend them by specific legislation to monopolistic practices they cannot now reach. I do not have a single formula for this, but I believe we must try to find one.

We can then, better face the problem of the growing monopoly in labor which is threatening to make the free enterprise system unworkable. Today labor is going through a stage of empire building reminiscent in many ways of a similar stage in business three-quarters of a century ago. Without the same buccaneering spirit, the same concentration on selfish interests, and the same disregard for the public welfare. Business leaders learned the hard way that the public will eventually rise up against those who prey upon them. Will our labor leaders be wiser? The right to collective bargaining to protect the weak position of the individual employee is one thing—but the grant of unlimited monopoly privilege to combine into a private government which can dictate its own terms to businesses, industries, communities, and even to the government itself, and which can start a wage-price spiral such as to hinder the war

effort and make full prosperity impossible in time of peace is something quite different. We need to find a middle way which will prevent employers from exploiting employees but which does not set the dragon's teeth. The exercise of arbitrary power by labor threatens not only business, but also all workers outside the unions and all those dependent on persons and savings for their existence, and ultimately, of course, the well being of mass workers themselves.

The idea that the labor problems can be solved if great, powerful organizations of employers will sit down with great, powerful organizations of labor is a delusion. If our experience in the N.R.A. is in the way touched anything, it is that the best that can be expected in the long run from such a situation is an armed truce with intermittent civil war. And every truce would be a monopolistic arrangement to take advantage of those not members of the great organized group. Business and labor unions, wherever concentrated with power ready-susceptible that are unfeeling to them will be surely inspired to protect their own special interests at the expense of the public. There will be efforts on the part of businesses, shielded by labor unions, to limit productive capacity, to raise tariffs, to obtain subsidies, and to maintain prices at artificially high levels. The unions will oppose labor saving changes and will seek higher wages even in areas and industries of surplus labor. Already demands are emerging for direct just action by business, labor, and agriculture to solve the transition problems of special concern to them. While these groups should have every opportunity to register their own self-interest, we cannot afford our fate to decisions made by pressure groups. If experience is any guide, such conflicts will be almost certain to restrict opportunities for progress and expansion, to exploit the public, and ultimately to injure even the business, workers, and farmers included in them. We cannot afford a postwar N.R.A. Resort to temporary government regulation is the transition from war to peace map, however, be necessary in cases of great hardship.

We can be prosperous beyond our dreams—all of us—workers, farmers, and business men—but one of the prerequisites is the self-discipline of accepting competition for ourselves as well as others.



President, McGraw-Hill Publishing Company, Inc.

TRANSPORT

CAB Grants 3-Year Certificate To Essair for Test Feeder Route

Continental also granted 400-mile extension for service from Hobbs, N. M., to San Antonio.

By BARBARA FREDERICK

A "test case" in the operation of feeder airlines was authorized by the Civil Aeronautics Board last week. Essair, Inc., of Dallas, is to be "guinea pig" in the situation which will be studied carefully by CAB as a help in solving the difficult economic problems presented in the development of local air service.

At the same time, Continental Air Lines' system was also increased by about 466 miles with a three-year approval of service from Hobbs, N. M., to San Antonio.

Stating its desire to supplement its study of local service by "the accumulation of practical experience with new types of operations," the Board granted a temporary certificate of convenience and necessity for the transportation of persons, property and mail over a new route

in Texas, to be known as Route 44 ½ Houston to Amarillo—Effective from Nov. 5, 1943, until Dec. 31, 1944, the certificate calls for service between Houston and Amarillo via Austin, San Antonio, Abilene and Lubbock. It is subject to the condition that each point be served on each schedule. The certificate is the first to be granted Essair, and is the first authorizing a true "feeder."

President of Essair is Sam W. Marshall, now a major in the Army Air Corps. His friends say he is the organizer of the feeder air-service idea, and has a considerable amount of experience in it.

Confidential Airlines' certificate for Route 29 was temporarily amended, for three months, to give mail service between El Paso and Benito Juarez, Mexico, N. M., instead of Big Spring and San Angelo, Tex. Service on this route and to Amarillo by Braniff is not to be started until the Board notifies the airlines that national defense no longer requires a delay.

vate engineer, he has had experience in layout and plans for community services of various sorts.

Serving as president, while Major Marshall is in active duty, is Gen. R. C. Marshall, Jr., Quartermaster General and head of the Contracting Corps of the Army during the World War.

Conference.—Vice-president of the company is E. V. Holt, a Texas businessman, formerly in the Bureau of Internal Revenue for many years.

Company plan meetings within the next 100 days to lay up operating management, maintenance available equipment, and discuss all other details to get the greatest number. Originally it had planned to use Lockheed in their operations, but there is now some discussion of using Douglas planes. The company is said to be amply financed.

Texas Case.—The decision to grant Essair that temporary certificate was part of a disposition by the Board of the so-called "Texas case." Other orders currently issued allowed Braniff Airways to include Austin as an intermediate point on Route 51, between Houston and Laredo.

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AA Application Denied.—CAB denied the application of American Airlines to serve San Antonio on its temporary route between Monterrey, Mex., and El Paso and Fort Worth. The decision was opposed by Mayor W. S. Marshall, who felt that the granting of American's application was definitely "inspired by public convenience and necessity" owing to the close proximity of interest between El Paso and San Antonio and of the latter "perhaps more than any other American city" with Monterrey and Mexico City.

Traffic Overload

Chicago and Southern Air Lines, learning that TWA's revenue passengers could not obtain space during July, August, September and October this year, shortage of equipment disclosed. Like other airlines, the company will open up old and in its former equipment, flying more enroute daily than it did in perspective.

These letters to and from men at sea and advanced Pacific bases weighed 566,624 pounds more than the July volume, first comparative month, and represented 363,469 pounds of mail brought to Pearl Harbor by air and 452,382 flown out.

Cooperation.—For the same month, the Fleet Post Office in San Francisco rested 183,000 pounds of mail to overseas destinations, and the figure at New York was 177,000 pounds.

In connection with the big Southwest transhipment, the Director of Naval Communications cited "excellent cooperation" by the Naval Air Transport Service, Army Air Forces, Army Transport Command and Army Postal Service.

UAL Seeks Routes In Northwest Area

Enters five applications prior to opening of pre-hearing trials.

On the morning of a scheduled pre-hearing conference on the original application of Northwest Air Lines for service between the Twin Cities and New York and later applications or intercession, United Air Lines filed five applications covering areas that might be considered in any consideration bearing on or adjacent to that route.

United asked to have its Route 3 certificate amended to include service between Toledo, Michigan and Milwaukee, and between Chicago and Milwaukee, a further amendment to this route would include Rockford, Ill., Dubuque and Waterloo, Iowa, as intermediate points; and a third amendment would permit service to Gary and Elkhart, Ind., Sandusky and Lorain, Ohio.

Two More Applications.—United filed two further applications, one from Cleveland to Montreal, the other from Cleveland to Newark-New York. The former would go via Erie, Buffalo, Rochester and Oswego; the latter requests an inter-

mediate point Ashland, Ohio, Erie, Pa., Jamestown, N. Y., Bradford, Pa., Elmira and Binghamton, N. Y., and Scranton-Wilkes-Barre, Pa.

Two other carriers filed new applications: Colonial Airlines throws its hat into the Caribbean ring, and Chicago and Southern Air Lines applied for a route from Memphis to New York via Chattanooga, Greenville, Greerboro-Winston-Salem, High Point, N. C., Birmingham and Mobile.

Fleet Post Operations

Fleet Post operators now training pilots and mechanics under WTS training programs for the CAB or under direct contract to the Army, applied for local feeder and pickup routes. Each stated that in laying out his routes it had attempted to avoid paralleling any established routes. The applicants were Aircraft Sales Co., Fort Worth, whose president, Leslie H. Brown, is president of the National Aviation Training Assn.; Boeing Trainer Aerovacation Corp., Indianapolis; One Aircraft Corp., Kansas City and Town Aircraft Co., Des Moines. Each applied for several routes in the immediate territories, with BAKER/WHITE.

Carriers recently initiated the Chain Letter Club to provide additional mail service from Denver, Cheyenne, Salt Lake City, Spokane, Seattle and New York. The Bakersfield, Calif., office of the Bureau of Prohibition has access to equipment for use in halting illegal mail. The Bureau's carrier service has been suspended since the beginning of the war. The Bureau's main office is in Washington, D. C., and its regional offices are in Atlanta, Boston, Chicago, Detroit, Los Angeles, Miami, New Orleans, Philadelphia, St. Louis, Seattle, and West Coast cities.

Planning is in progress on the Central Air Transport, Inc. network, which would substantially increase the speed and safety of mail delivery and will also cover the established civil air routes in the central United States.

Western was granted a certificate to add Route 10 from San Jose and San Francisco to Sacramento, San Joaquin and Fresno, Calif., and to add San Francisco to Los Angeles. The certificate was granted by President Alvin White, San Francisco.

Applications for mail services were made by Royal Coast Airlines, Inc., of Seattle, Wash., and the West Coast added an early petition to the CAB to route its services from Seattle to Anchorage, Alaska, via Juneau, Sitka and Ketchikan, and to the Aleutian Islands. The application was filed by President Alvin White, Seattle.

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The War Department has released seven DC-3s, two of which have been allocated to American Airlines, two to Eastern Air Lines, two to United and one to TWA. They bring to 20 the planes turned back for commercial service since June 11 by the Army Air Forces.

REDUCE INSIDE "DIM-OUT" AREAS



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Hawaiian Airmail Tops All Records

New statistics calculate that the 44,342 pounds of mail handled by the Navy Postal Service at Pearl Harbor during October was the largest amount of mail transhipped by air through any port in one month. It's an argument for V-mail!

State Rights Faces Test in PCA Action

AA also protests Michigan Board's authority in granting helicopter franchise.

Pennsylvania—Central Airlines' challenge of the Michigan Board of Aeronautics authority in granting a helicopter route franchise to Great Lakes Skysways, Inc., as seen by the state board in a test of state's rights according to word from Lansing.

It was disclosed in Washington, meanwhile, that American Airlines also has protested the Aeronautics Board's action, to Gov. Harry F. Kelly.

¶ Protest—PCA's petition, protesting the franchise granted to the Great Lakes Skysways subsidiary to operate between Detroit, Flint, Saginaw and Bay City, was addressed to the Governor, Attorney-General Harbert Hankins and State Highway Commissioner Charles M. Ziegler. The Governor's legal counsel said the move was unprecedented, and expressed uncertainty how it could be brought before the State Aeronautics body for consideration. The State Board also established a provi-

tion in giving a surface carrier authority to enter air operation.

"Our order has been issued, and I don't see how a petition which anticipates damage before there occurs any legal consequences," said Mr. John E. Walsh, acting director of the Board. PCA's appeal claimed the Board erred in "thus compa[n]y with no air experience" a route serviced by PCA prior to April, 1945, and since suspended because of the war.

¶ Protest Phase—Walsh asserted that Great Lakes Skysways received the Board's charter because of "unusually" postwar plans it had widely publicized. He had considered the route "open," he added, because PCA had not indicated plans to resume service, and therefore he had not deemed a hearing necessary.

"This is a brand new field and one that will boom in the winter," Walsh said. "It will have great and great bearing on the state rail as well as other air service development. Our Board welcomes a chance to see where it stands with relation to federal authority."

¶ Appeal—PCA told the Appeal Board — the Governor, Attorney-General and Highway Commissioner—it found it "most difficult to com-

prehend why it is so necessary to rush the results of certification to a local company to transport passengers by air when no equipment is presently available and when development of the helicopter and other small planes suitable for local, commercial use is still in the experimental stage, with the commercial and economic application open to considerable conjecture."

In another development on the State aviation front, Gov. Spessard Holland of Florida appointed a seven-man interim citizens committee on aviation to study probable trends of postwar aviation in Florida. The Committee, authorized by this year's legislature, will submit recommendations to the State legislators when they meet again in 1946.

Hearings May Reopen On N. Y.-Boston Line

CAB notified of change in rail holdings of Northeast stock.

Hearings on applications to fly the New York-Boston route, recently concluded after sessions with both New York and Washington, may be reopened.

Northeast Airlines has notified the Civil Aeronautics Board that the Boston and Maine and Maine Central Railroads have disposed of 116,000 of the 193,000 shares of Northeast stock that they owned when the hearings closed.

¶ Control—The question of "control" of the airline by these railroads had played an important part in the hearings and an even more important one in the brief filed by Public Counsel Henry L. Hall and D. Franklin Bell. The brief stated that "in the absence of any issue of control over the public interest would best be served by authorizing the operation of Northeast between Boston and New York."

However, as public counsel felt unconvincing that the railroads did not control the airline, they recommended that the application of Colonial Airlines for this route be granted. Other lines also have applied.

¶ Stock Disposal—to give counsel opportunity to question Northeast and representatives of the railroads about the disposal of the stock, it seemed certain that the case would be reopened, probably after the first of the year.

S. J. Solomons, president of Northeast, refused to discuss the purchases of the stock prior to further hearings.



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The Christmas Season brings to heart and to mind the friendships of a long and busy year...and the friends of years gone by.

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AA Cites Saving In Reclaiming Oil

Company recommends re-use of
American by armed forces

American Airlines, drawing on its own experience in use of re-refined lubricating oil, recommends reclaiming of oil by the armed forces as a (Soviet-American) device.

O. B. Kirchner, chief AA engineer, suggests re-refining units at or near all key air bases, and points out that crankcase oils drained from ground or aircraft automotive equipment operated by the AAF, Navy Quartermaster Corps, or Ordnance Department might easily be re-refined to new oil specifications. In treating drained crankcase oil in the field, no tags, no storage or re-contamination should be incurred. Instead it should be reclaimed. Oil drain procedures also may be examined.

► 25 Percent Re-refined—About a fourth of the oil used by the airlines throughout its entire system is re-refined lubricating oil, Kirchner states. The line started re-refining its lubricating oils in 1948, under direction of Gilbert K. Brower, materials engineer, at Dallas, Newark, Cincinnati, St. Louis and Chicago, but because 90 percent of all oil changes are made in New York at approximately 100-hour oil change periods, all such operations are now carried on there.

Airlines is using over 6,000 gallons of re-refined oil a month in its aircraft engines operating out of New York, Kirchner says. American has made a study of re-refined oil and found that it is equal to new oil in all respects. The company has recommended to the Armed Forces that all aircraft engines be converted to re-refined oil as soon as possible.

► In Chicago, Rep. Randolph (D., Ill.) recommended immediate pro-

New York, compared with 3,000 gallons between August, 1948, and May, 1949.

► \$3,000 Barrels a Day—Estimates have been made, according to Kirchner, that demand for re-refined aircraft oil will reach 10,000 barrels a day by the end of this year. He claims, he believes, will meet much of the demand, since "if only 10 percent of the average amount of this fuel oil requirement were re-refined, there would be an annual saving of 15,000,000 gallons of aircraft engine oil." Re-refining of heavy duty motor oils used by other branches of the service, he said, would meet the saving 100 percent of the present high in August.

American has made no actual flight tests to compare operating experiences of an engine on re-refined oil with that on new oil. Re-refined aircraft oils are not used in this way in service. "Our flight experience," AA's chief engineer reports, "has been based on user re-refined oils as produced in New York, in the same manner as new oil would be used; for refit and makeup."

SHORTLINES

► A Commission to regulate air transport was among the major principles in a proposal submitted by Adlai Stevenson, Illinois Association of Manufacturers, to the Second War Congress of American Industry, sponsored by NAM in New York last week.

► In Chicago, Rep. Randolph (D., Ill.) recommended immediate pro-

tection of 18,000 to 36,000 new airports and 450,000,000 worth of highway construction. In addition to \$6,000 to \$8,000 miles of new express highways, he "take up the unemployment slack." He told the American Association of State Highway Officials that the United States can be expected to have 665,000 private automobiles within five years after the end of the war.

► Northwest reports it carried 10,000 revenue passengers in October, its planes setting a new record of 7,000 passengers per plane per route, 45,000 ahead of the previous high in August. **► Congreso Mexicano de Aviación**, Pan American's affiliate in Mexico, has added to service on its routes to this country and Cuba "to meet increased wartime air travel needs," PAA announces. Three daily flights have been started between Mexico City and Monterrey, and service is due between Mexico City and Tijuana. Two flights from Houston, City to Monterrey and Mexico City has been increased to four times a week.

► Pennsylvania-Central is planning to open a new city ticket office about Dec. 15 in the Hotel Cleveland at Cleveland. PCA claims it is carrying along a third of all air mail from Washington, having taken out 146,000 of the total of 487,000 pounds shipped from the capital on October 1.

► Major Le Guarino sold 300 persons who gathered to celebrate his fourth birthday at La Guarina Field last Saturday. The airport now has 3,000 more employees, exclusive of military operations, than it had in 1948. He estimated that the current year will see 3,600,000 man hours and 3,900,000 man air express pounds leave the field during the first year of its operation, and predicted that 100,000 man passenger will use the field this year than the 80,000 in 1949.

► Lehman Brothers have acquired an interest in Air Express International Agency, Inc., and affiliated companies, Charles M. Mayer, Agency president, announces. Paul R. MacLean of the banking firm has been elected a director. Air Express International Agency was organized in 1948 and has arrangements with Pan American Airways, American Export Airlines, TACI, British West Indian Airways, Avianca Brasil and KLM Royal Dutch Airlines. Its offices are in New York, Miami and New Orleans.

► Panagra has rearranged schedules over the principal sectors of its South American routes to increase passenger and cargo carrying and the use of their DC-3As recently allotted it to help on the traffic between its Baltra and Barroso Arenas terminals. Panagra says the flexibility of the new equipment will permit an alternate network for scheduled passenger-mail-express service and all-cargo service starting 13 months ago.



Airline Operates Oil Re-Efinery: American Airlines reports approximately 25 percent of the oil it uses is re-refined lubricating oil. Here Gilbert K. Brower, materials engineer and director of the program, touches a worker while an adjustment is being made to a re-refining unit at New York.

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FOUR NEW McGRAW-HILL BOOKS

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CAB ACTION

a CAB entered a consolidation case one year ago against Pan American Airways, Pan American World Airways, Central American Airlines, and United Air Lines, charging that the four airlines were conspiring to restrain trade by maintaining fares.

b W. E. Bruce & Co. was granted permission to participate in the Children's Hospital Fund Drive, which was vigorously opposed by the CAB, which stated at the present meeting:

"CAB consistently desired the conduct of local fund drives, since these aid the welfare of the community. In this case, however, the Children's Hospital Fund Drive, which was vigorously opposed by the CAB, has been conducted in a manner which is calculated to interfere with the proper operation of the Civil Aeronautics Act."

c CAB consistently denied the conduct of local fund drives, since these aid the welfare of the community. In this case, however, the Children's Hospital Fund Drive, which was vigorously opposed by the CAB, has been conducted in a manner which is calculated to interfere with the proper operation of the Civil Aeronautics Act."

d Western Air Lines' bid to purchase the Los Angeles International Airport was rejected by the CAB, which ruled that the airport could not be sold to a non-resident airline.

e Interim relationship between American Airlines and Delta Air Lines, Inc., was terminated by the CAB, which ruled that the two companies must be separated.

f Interim relationship of David Aeromaritime and Pan American World Airways, Inc., serving in the same cities, was rejected by the CAB, which ruled that the two companies must be separated.

g CAB agreed to various inquiries to both the Department of State and the CAB concerning its proposed expansion of its foreign air service, including the CAB's proposal to make direct approaches to a foreign government, instead of through its existing established trading partners, in making operational recommendations. CAB also agreed to a proposal by the Department of State that the CAB should not be asked to make recommendations to the State Department on the basis of hearing before the Board to determine whether the particular issue would be best handled by the Department of State or the CAB or by negotiations, G. C.

h A press motion was filed with CAB by the American Society of Motion Picture Producers, Pan American Great American, and Transoceanic Airlines, Inc., asking the Federal Trade Commission to bar the three carriers and Pan American from doing business with the Pan American. The want of a formal complaint by the CAB on the above motion, that Pan American had violated the rules of the code, was the only obstacle to the claimed injunction upon the上述. It is believed that the CAB will take action to prevent the above from being served by holding this question over until after the CAB has issued its final decision on the above motion during the hearings,

which have been rescheduled for January 15.

i CAB rejected a proposal by Pan American to merge with Pan American World Airways.

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committee of the Senate Commerce Committee is studying for the Senate which is likely to demand the date when you or no one international air transportation.

¶ Leah Clark and other Senators had copies of ICAI's report, while some aviation officials of the Administration were wondering what was in it. Outline of the report leaked through the Senate to a newspaper reporter, much to the annoyance of the State Department, which in effect confirmed the news story by releasing comment.

The report advises policies well known and discussed by most persons interested in foreign air services. Almost universal interest in aviation as a main channel of world affairs will bring all proposals to the surface for open discussion. For that reason, ICAI's recommendations cannot yet be regarded as the framework of future air policy.

Neither CAB nor the Post Office and Bureau of Air Commerce have, with scattered success, been able to make any real impact on the CAB's recommendations. The Post Office and Bureau of Air Commerce have, however, been instrumental in getting the CAB to accept the recommendations of the Senate Select Committee on Small Business, which has recommended that the CAB be given authority to regulate fares and routes.

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"Sounder Balance" For Airlines Urged

ATA recognises need as usual
of U. S. air transportation
space.

The airlines, through the Air Transport Association, have recommended that "sounder balance" in their industry as a vital consideration in the growth of the Nation's system of air transportation.

The declaration invited the interpretation that the lines are willing to see some concessions granted by the Civil Aeronautics Board to small but strong members of their group when feeder, or local service, routes are certified.

ATA Policy—The stand of the ATA was contained in one of the points to be considered in the Association's own study of the air feeder line question, announced last month in AVIATION NEWS. These points now have been submitted to the CAB. The second reads as follows:

"One of the most vital considerations in dealing with the so-called feeder problem is that of securing a sounder balance among the airlines and preserving a proper balance in the future in order that the welfare of no group of airlines will ever be wholly dependent on any other group of airlines or permanently dependent upon government subsidy."

Expansion Brake—Before ATA's board of directors approved this point, they were informed that its implementation would in effect place a brake on proposed expansion applications by the airlines.

If followed, the thinking of men who feel that the large number of expansion applications before the Board is inconsistent with experience and financial resources, and are fearful that the optimistic expectations of many companies, coupled with speculative devices of promoters, could lead to a rate of growth unworkable by actual conditions.

If the CAB takes kindly to the suggestion that a sounder balance among the airlines should be attained and kept, the course of action by the Board should be to keep the applications by the airlines from being inflated. That is a disproportionate relationship—an "economic imbalance"—among the airlines was summarized some weeks ago by C. Bratt Moore, president of Pennsylvania-Central Airlines, who contended in a Milwaukee speech that the "big Four" lines, with 81 percent of the business, are crowding the other twelve domestic lines in the latter's fight for the remaining 19 percent.

Plans and Observations—While the ATA, as an organization, did not present evidence at the Board's recent hearings, several member airlines were on hand with their own observations on the status of the various segments of the industry and their own results of last and careful private studies. The Association's suggestions to the Board come after close scrutiny of the facts brought out.

In another point advanced to the CAB, the Association, urging that solution of the feeder problem be guided by principles of the Civil Aeronautics Act "calling for a system of air transportation," took cognizance of United States transportation history, in which surface lines were built without economic justification or even with the definite intention that they later should be absorbed by other systems. Weak railroads were often built with a confused web of routes, causing bankruptcies and heavy regulation.

Recommendations—The ATA recommended that the CAB examine particularly the history of branch and short line rail and motor operations, particularly as to absorption of initially independent interests by such railroads, and that of securing a sounder balance among the airlines and preserving a proper balance in the future in order that the welfare of no group of airlines will ever be wholly dependent on any other group of airlines or permanently dependent upon government subsidy."

¶ Sixty-one percent of those in Canada and Great Britain agree that there should be joint regulation of international air routes after the war.

A Gallup poll, results of which were announced by Captain Fred S. Deurer, asked the question whether countries should share or not share the cost of international air routes.

¶ The public's answer was 56 percent for such joint regulation, or each remain free to start international routes "when and where they please."

Sixty-one percent of those in Canada to whom the question was put said 66 percent in Great Britain favored joint regulation.

State Dept. Winning Air Accord Powers

CAB reported merely acting in
advocacy capacity on foreign
airway issues.

The State Department so far is winning the federal agency contest for power over United States air-service aviation. Spokesman for the Civil Aeronautics Board admit the Board is acting merely as an advocacy expert and often does not know what the leaders of the President's Interdepartmental Committee on International Aviation, especially its chairman, Adolph Berle, are doing. In other words, the President is carrying the ball.

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TRANSPORT OFFICIALS AT KANSAS CITY MEETING

Among representatives of airlines and prospective carriers who attended the recent conference of Kansas City to discuss local air service problems were (left to right): Aldis B. Woodbury, vice-president, Parks Air Corp.; E. Marion Joncas, director of planning and research, Delta Air Corp.; E. Lee Tolson, executive vice-president, Trans World Airlines (standing); S. W. Farbridge, III, chairman to president, Kansas City Southern Transport Co.; S. H. Butterfield, director of research, Mid-Continent Airlines; Harry R. Stripling, vice-president, All-American Aviation; Charles E. Beard, vice-president, Boeing Air Lines; W. Haley Reed, secretary and counsel, Consolidated Air Lines.

Senators Ask Use of Canadian Airports Linked by Alaska Route

Subcommittee points to "large investment in facilities" and recommends improvements in recommending talks with Dominion.

Negotiations with Canada for free postwar use of airfields linked by the Alaska highway are recommended by a Senate subcommittee just returned from an inspection of the road.

"The United States," said the subcommittee, made up of members of the Senate Post Office and Post Roads Committee, "has made a large investment in facilities of these airfields along the route of the highway. Improvements made are of permanent value for defense of Alaska and should remain available for after the war." The War Department should request the State Department to initiate negotiations at once with the Canadian Government looking to free use of the airfields after the war."

► **Air Route Established.**—A chain of airports from Edmonton, Alberta, to Fairbanks, Alaska, was in existence when the highway project was decided on, the air route going from Edmonton to Fort St. John and Fort Nelson, British Columbia; White Lake and Whitehorse, Yukon Territory, and on into Alaska's interior.

"Nearly stoppage money," the report states, was spent on airfields that lacked personnel, drop tanks, hangars and radio facilities. There were no emergency landing fields and aviation gasoline, food and supplies for personnel depended on air transport. To prepare for planes to Northwest Pacific operations and provide Alaska with supplies "should the water route become too hazardous," grading and surveying of a connecting highway and construction of airport service facilities were required.

► **Major Routes Needed.**—The subcommittee found that the general situation now has improved, but "the necessity remains for both long-haul and air routes available for large operations as a part of the permanent Alaska defense." It concluded, however, that the Alaska highway, as being completed, is adequate for anticipated military needs. Further expenditures of a proposed military highway was not considered warranted now.

Along the present road, the group saw airports being expanded. Runways are being enlarged, hangars with shop facilities and barracks built and radio facilities being in-

stalled. Flight strips are going in at intermediate points. In addition to serving as a guide to planes from the United States to Alaska and beyond, the highway may be used for a landing in "extreme emergency," something that already has occurred on one of its Alaska sections.

Justice Dept. Studies Plant Liquidation

EPA backs option for possible use in monopolistic circumstances.

Justice Department is watching plans of federal agencies and Congress for postwar liquidation of war plants. Justice feels that court actions held by industrial operators could be used in such a way as to create monopolistic conditions against the public interest.

Army Tests C-54

Of interest to airmen considering postwar conversions of military transports are Indian figures on performance of Douglas Aircraft's four-engine C-54.

Omitted is an economic airplane to qualify for the Army's transport needs. The C-54 rating is C-54 of 40,000 pounds gross loading, nearly maximum was required to take off in 1800 feet and to use only 1800 feet of runway in landing.

Using the plane's clearing boost and two-stage pump, a crew consisting of basic pilot and steward for eight a bulky field gun and \$100 pounds of armament. With this load, a 300-foot takeoff and 1800-foot landing were specified.

The aircraft was unbalanced for a cargo that might have been comparable to commercial air-line cargo.

The Army tested the C-54 as a paratroop ship, too. At a throttled rate of 50 r.p.m., officers and engineers held out for 10 minutes, using the reduced engine drive. In other low tests, these planes of unbalanced loading were tested at speeds up to 150 mph without overhauling of the twin-plane's engines.

Fred E. Bergquist, economist in the Antitrust Division, was expressing personal opinions when he recently addressed the National Industrial Conference Board's "Exposition of War Plans." The department, which had been asked to furnish all information to it, may be observed that the address represents preliminary thinking on this subject by the Attorney General and staff.

► **Monopolistic Powers.**—Bergquist said existing industry could be crushed by a windfall policy of plant disposal in industries in which existing capacity and fixed charges are an important factor. On the other hand, the dangers of monopoly tendencies should be carefully avoided. As of Jan. 31, 1943, the speaker and 81 cooperatives held about half of total requirements for pilot-trained labor.

However, the Justice subcommittee dwelt more on the question of trusts and monopolies. He told Arkansas News he had studied the subject while helping with the preparation of Senate Document No. 109, a report on federal agency post-war planning, and his main intention was to give helpful information.

► **Breakdown of Fagons.**—Bergquist breaks down the government's \$15,300,000,000 investment in war plants both by agencies and by industry. He points out that this total in itself is equal to only two months' cost of the war at the current rate of \$7,000,000,000 a month. Therefore, plants should be disposed of with more consideration for benefit and effect on the national economy than for the salvage of dollars.

He poses two broad alternatives: (1) immediate disposition regardless of price, and (2) disposition with consideration for economic benefit as well as ultimate recovery. While he favors the latter, he does not advocate slow procedure as such. He advocates orderly liquidation as likely to achieve both objectives. Many of the transition problems will be solved by continuing relationships with Warmanagers.

The Justice view was announced to a large group that might have been comparable to commercial air-line cargo.

The Army tested the C-54 as a paratroop ship, too. At a throttled rate of 50 r.p.m., officers and engineers held out for 10 minutes, using the reduced engine drive. In other low tests, these planes of unbalanced loading were tested at speeds up to 150 mph without overhauling of the twin-plane's engines.

were, but even if not, they may not be suitable for peace production. Aviation facilities are given as the outstanding example of abundance when war capacity is compared with normal capacity.

► **Five Plans Proposed.**—The factors of abundance in terms of normal requirements, the need for a long-term concentration in the hands of a few companies, the difficulties of participation in plant disposal by small business and the unanswerable question what will the post-war production requirements be—all are dealt with in detail.

The speaker proposes five alternative plant disposal plans to fit varying conditions. He suggests an overall catalog of plants, and pamphlets giving complete details for interested persons. He would have Congress lay down a broad plant liquidation program to be followed by administrative agencies.

If Bergquist had to put his proposal in one sentence he probably would say he wants war plants used to best advantage for reconstruction of the country.

Brotherhoods Oppose Plan in Air Field

Also suggest U. S. International lines stay out of domestic traffic.

Another voice was added last week in the chorus as postwar aviation when two powerful railroad unions took a stand against surface transport invasion of the airways and favored a "single strong American flag line" in international operations.

The views were those of Alvanley Johnson, chief engineer of the Brotherhood of Locomotive Engineers, and A. F. Whitney, president of the Brotherhood of Railroad Trainmen, together representing over 250,000 workers.

► **Wage Standards Studied.**—They concluded that present international and domestic laws on air sovereignty are "unsatisfactory," but suggested that Congress explore possibilities of providing that treaties to foreign flag air lines protect American wage standards. They also advocated that this country's international airlines stay out of domestic traffic and vice versa, and urged that leases to foreign lines for charter and pickup at traffic be limited to gateway airports. In reiteration of policies already expressed, the unions proposed continued Federal regulation of domestic and international air transport.

In intent of the brotherhoods was around when ramars stated that the railroads would enter the air transport field.

and that surface carriers be kept from operation or control of sky space.

Finally, they advocated that the United States concentrate on a single air line "to compete effectively in the postwar world against the great foreign airline monopolies," suggesting that such a line be organized, much as government approved and is privately owned, with all American transportation interests represented.

► **Ask U. S. Leadership.**—The unions have expressed the opinion that it was the time for the government to "assume a leading part in the shaping of America's future international and domestic air transport policy." Urging a thorough public discussion of the problem, they said its solution should not be left entirely to diplomatic negotiations, and "the people of the United States should have now to formulate and establish a comprehensive policy."

The theme throughout was that an transport policy was "specifically exercised" with issues of safety, war and peace. Until peace is assured, it was said, the American people should not in any way "relinquish their present advantages in commercial aeronautics and military air power."

► **Freezing Policy.**—Urged international situation and peace entente, it was said, call for a "freezing" of present air policy and the statement opposed any relaxation of control of air space, declaring that "for the present we must consider complete sovereignty of the air as a necessary principle of national safety."

The provision suggesting that Congress study to protect American wage standards was supported by the contention that "high wage standards are essential in a highly skilled industry like air transportation, and should be protected by cheap foreign labor."

► **Concrete and Visual Examples.**—Concrete and visual examples and suggestions as to how the Navy Department and authority have saved money in the form of critical materials, a large total of man and machine hours of labor and millions of dollars are offered by a Navy exhibit current in the Social Security Building in Washington.

BRIEFING

► Charles R. Wilson, WPD executive Vice-Chairman, told the National Association of Manufacturers meeting in Atlanta, Feb. 10, that the postwar production in 1943 will be about 128 percent higher than 1942 and that our current cost is more than 225 percent higher, and for 1944 the industry is expected to raise this to a figure 325 percent higher than for 1942. He said that, as for numbers of planes, "we are now approaching our top levels."

► Army Air Materiel Statisticians, headed by Frank T. Thompson, believe the aerospace industry is being planned for aviation expansion because "we are moving with lightning rapidity toward becoming a land of three dimensions." Reassuring that he was not overlooking the necessity of using the war, he added that free time is the best way to keep the spirit of life and it is our task to find out how to make it work. "And as it is necessary for the general staff to plan for war in time of peace, so it is essential to plan for peace in time of war," he said.

The will of May Lewin B. Ellington, editor-champion, who died in a Caribbean plane crash, provided for an annual memorial benefit to help him to the individual making the longest official distance mailing flight from any type of basecamp other than towers.

► Bell Aircraft at Buffalo has put 450 boys of 16 and 17 into 100 full-time jobs under an arrangement whereby they work in the plant three evenings a week. They are paired, with one working the first shift and the other the last three, under a strict stipulation between the management and the young workers by which the industrial awards will not go down.

► Concrete and visual examples and suggestions as to how the Navy Department and authority have saved money in the form of critical materials, a large total of man and machine hours of labor and millions of dollars are offered by a Navy exhibit current in the Social Security Building in Washington.



Feeder Action by CAB

THIS CIVIL AERONAUTICS BOARD has finally overcome its own inertia by acting on the vital problem of airline route expansion.

In granting Essar, Inc., a three-year certificate for an experimental Amarillo-Houston feeder service, it has bestowed the first commercial certificate of convenience and necessity—through a temporary basis since the "Thunderbolt" seemed willing the existing air carriers were all certified by the old Civil Aeronautics Authority, CAB's predecessor.

The decision not only brings a new company into the domestic picture for feeder traffic, many merits, but it breaks the log jam of applications which have piled up. Psychologically, the move causes the way for further action. Although no one anticipates that the Board will suddenly go hog-wild on route expansion, nevertheless, chances now appear better for moderate extensions in routes or addition of intermediate points, than at any time in recent years.

Nor should the opinion be taken as an indication that rapid action will follow on the hundreds of other feeder applications. Realistic observers believe that many of these will be weeded out in one way or another before hearings start.

It is unfortunate and even misleading that the majority opinion was signed only by vice-chairman Warner and member Lee. Chairman Pogue and member Bryan presented a separate concurring opinion with a dissent, while member Branch also added a similar opinion.

Actually, however, the Board members were unanimous in the feeling that Essar and Continental, which was granted a similar three-year certificate for Hobbs-San Antonio, should get expansion approval. The dissents were on minor points only, although perhaps significant in that both urged even more new service than the majority opinion. Pogue and Bryan felt that a temporary certificate also should have been given Branch for through operations between San Antonio and El Paso. Branch contended that American should have been permitted to serve San Antonio on its already operating El Paso-Monterrey link.

ENORMOUS pressure on the air transport industry are the Board's words that "this is an opportune time to experiment in this important Texas area with three-year authorization because the airlines involved, enjoying as they do better financial results than they have ever experienced in the past, can better afford to undertake new development of this kind than ever before." There is no serious risk that the government will be committed to any substantial financial outlay and there is a certainty, at the end of three years, that the experiment can be terminated if the indications at that time are adverse to its continuance."

If the "important Texas area" is a suitable experimental area for new type operations, the question naturally is being asked by the industry today—"What about other important areas which need air service, especially elsewhere in the spacious West?"

"The rendering of local air transportation service, such as Essar has proposed, presents a difficult economic problem to which a great deal of study is being devoted, and it is desirable that this study be supplemented by the accumulation of actual experience with new types of operation of particular interest or of potential importance," the opinion says.

"The service which will be rendered by local carriers concentrating upon the problems of a limited region in which the terrain and climate are generally favorable to such operations, and emphasizing service to intermediate points rather than competition for through traffic, seems to be sufficiently distinctive in character and of sufficient interest in relation to the general planning of future development to justify its establishment in the West Texas area on an experimental basis. The results during the designated life of the experiment can determine whether the experimental service should thereafter be converted into a permanent one, and the carrier's ability to make substantial progress toward self-support will be an important factor in determining its future as a certified operator of services of the type proposed."

THIS new openness toward careful experimentation, where the government is unlikely to be obliged for excessive costs, is long overdue. The Board for many long months has given every indication that it had been unable to agree on any route or rate policies for the future, and was apparently in permitting necessary growth. Contradictions in opinions, apparent indecision on major problems, with Board members themselves frequently at odds throughout discussions of cases, threw a pall of uncertainty and doubt over what should have been a rapidly expanding airline system since pre-war days.

The Essar opinion gives little evidence of formulation of long-term policies, but it is to be hoped that it at least marks the beginning of the end of a long period of stagnation, and the start of a bolder era in which private industry will get a chance to show whether it can sink or swim, fancy theories aside.

Although the opinion repeats the cautious warning that starting of the services appeared dependent on national defense conditions, it is felt in Washington that operations can be started as soon as the carriers are ready. Equipment is admittedly a problem, but is not likely to be insurmountable.

Roscoe R. Wood



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The Captain Meets a Robot

THIS apparatus is the G-E automatic pilot—it's being examined here by Capt. J. S. Evans, U.S.N., inspector of naval material, Schenectady, and C. M. Young, G-E aeronautics engineer. Although robot pilots are anything but new to fliers or builders of aircraft, this particular pilot incorporates important design innovations which are expected to contribute greatly to the automatic operation of aircraft.

The automatic pilot is one of the steadily growing number of aircraft systems being built by G.E. for our armed services. The excellence of other G-E equipment—the turbosupercharger, d-c generators, turret-control systems, aircraft instruments, etc.—has already been proved in severe combat service.

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